A CONSOLIDATION OF BUEL'S CULTIVATOR AND THE GENESEE FARMER.

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THE CULTIVATOR.

"TO IMPROVE THE SOIL AND THE MIND."

MONTHLY NOTICES.

COMMUNICATIONS have been received during the past month, from Richmond, T. C. Peters, Geo. Hezlip, Sanford Howard, Za. Drummond, S. W. Bartlett, D. Bidwell, D. G. Weems, Agricola, Agricultor, Edwin Booth, Adolphus, Wm. Partridge, A., A Farmer's Boy, James T. Earle, T. McCarty, Gleaner, Solon Robinson, The Neighbors, Henry Watson, G. M. Haywood & Co., Observer, (shall have a place in season for next year, and we shall be glad to hear from him on the other subjects to which he alludes,) Geo. Bommer, D. Smith, T*******, A. McDonald, Wm. C. Rogers, A Subscriber, L. Durand, Jas. T. Norton, A. & G. Brentnall, P****, A Subscriber, H. S—d, B. J. Goldsborough, James Whittem, John J. McCaughan.

ACKNOWLEDGMENTS.—We are indebted to Rev. Mr. COLMAN, for a copy of the "Essex Ag. Society's Transactions for 1842,"—a handsome octavo pamphlet of 136 pages. It contains several papers of great value, some of which will hereafter be noticed at length. We are also indebted to Mr. Colman for a copy of "Smith's Essay on the Construction of Cottages," which received the premium of the Highland and Ag. Society of Scotland. This work contains nine designs, with estimates, working plans, &c. for workingmen's cottages, one of which we may hereafter transfer to our pages.

To ALFRED HUGER, Esq. Longwood, S. C. for a copy of "A Day on Cooper River," for extracts from which, on the culture of rice, see another part of this paper.

To PARSONS & Co. for their Catalogue of Fruit and Forest Trees, &c. cultivated and for sale at their Commercial Garden and Nursery, Flushing.

To WM. MCKINSTER, Middletown, Conn, for Hon. E. Jackson's Address before the Middlesex Co. Ag. Society in Oct. last, together with the Constitution and By-Laws of said Society.

To the EDITORS of the London *New Farmer's Journal*, for the files of that paper for March; and to P. L. SIMMONDS, Esq. London, for the Dublin *Farmer's Gazette*, *Edinburgh Weekly Journal*, &c.

☞ IN the midst of the general falling off of our subscriptions, on account of the "hard times," the extra exertions of our friends at *Fort Gaines*, Geo., deserve our especial thanks. They have already sent us the cash for about fifty vols., and give us the assurance that they will add another fifty at least, during the season.

THE CULTIVATOR AMONG THE INDIANS.—We have seldom received an order for the Cultivator, which has gratified us as much as one from the Superintendent of the Dwight Mission among the Cherokees. We last year sent them six copies. This year eighteen copies have been ordered, for subscribers among the Cherokee farmers. The agent says:—"We have some very enterprising farmers among the Cherokees. You would be highly gratified to see some of their fields, containing from 50 to 150 acres, enclosed with a good fence, covered with corn, wheat, oats, and potatoes, and other vegetables, producing an abundance of the necessaries of life."

SCYTHE STONES.—Those who want a superior article of this kind, are referred to the advertisement of Mr. BATES in this paper. The stones from his establishment, have a high reputation, and are doubtless of a superior quality.

☞ WE have sent the letter of T. M'CARTNEY, Esq. of Wellsburg, Va., to a friend, who we presume will furnish the information asked for.

STATE FAIR.—It will be seen by the Prize list in another part of this paper, that the next Fair of the New-York State Ag. Society, is to be held at Rochester, on the 19th, 20th and 21st days of September next.

THE LADIES.—"Gleaner" gives a hearty welcome to our lady correspondents. He says:—"I see the ladies are coming out, and I am rejoiced to see it, for we need something to arouse the females of our land to their duty. The picture drawn by your correspondent SARAH, is no fancy sketch; and this accounts for the numbers who live and die in single blessedness, rather than drag out such a life as represented by Sarah. I say then, ladies, go on, and rest not till our farmer's wives are what they should be. The power is in your hands, and you can use it to advantage." Another correspondent, Mr. Levi Durand, greets our female correspondents as follows:—"Mrs. HOWARD'S plan and description of a 'Farm House,' I think is very good, and well calculated to suit a farmer who would like to have a convenient house to live in. The letter of a farmer's wife, SARAH, is capital. It comes right to the point, and is just what we want at the present time. I hope that she and Mrs. Howard, and other of your lady readers, will give us from time to time, their ideas on domestic economy."

PRESERVATION OF APPLES.—We last week received from TYLER FOUNTAIN, Esq. of Peekskill, a dozen fall pippins, which had been so well preserved through the winter, that they were as sound and juicy as in November. They were preserved by packing them in barrels with plaster of Paris. The plaster should be sifted, that it may settle down so closely as entirely to fill the spaces between the apples, and thus exclude the air.

CHAMBER'S EDINBURGH JOURNAL.—It will be seen by an advertisement in this paper, that this highly popular and most valuable work is about to be republished in New-York, and at the low price of $1,50.

THRESHING MACHINES.—Inventors of these machines are referred to the letter of Mr. Whittem, in this paper.

DOMESTIC SILK.—We were shown recently, a piece of gro de nap silk, of 36 yards, nearly a yard wide, manufactured at the Auburn prison, for Mrs. DARIUS CARTER of East Bloomfield, from cocoons raised by her the past season. Though not as highly finished as the foreign silk, it was a far more substantial fabric, and weighed nearly twice as much as the foreign article. In a letter accompanying the silk, Mr. Polhemus, the agent of the prison, says—"We have sent it just as it came out of the loom. It has not quite as much lustre as we could wish, but it will do as much service, we venture to say, as any piece of silk that can be found in the United States." Mrs. Carter deserves great credit for her perseverance in raising cocoons. In 1841, she raised a quantity of cocoons, reeled and prepared the silk for weaving, but was unable to fulfil her intention of having it wove and made into a dress to be exhibited at the State Fair at Syracuse, for want of the necessary facilities for weaving. She however, presented the silk at the Fair, and received the Society's first premium of $20. Now that the difficulty of getting the cocoons manufactured, is removed by the introduction of this branch of business into the Auburn prison, we doubt not the time will soon come when it will be the boast of many of our fair readers, that they can dress in silks which their own hands have reared.

DAIRY COWS.—"A Subscriber," of Red Hook, after alluding to the statement in our last paper, of the amount of butter made weekly by Mr. Sotham, from ten Hereford cows, says:—"I am making 30 lbs. of butter per week from four cows of the native breed, but two of which are believed to be first rate. The two considered the most inferior, I purchased about 18 months since, one for $13, and the other for $16." In another part of this paper, will be found a statement of the products of two dairies—one of 25 cows in Ohio, and the other of 12, in Connecticut, to which we refer such of our readers as are interested in this branch of husbandry. It will be seen that in one case, the average product in butter and cheese, from 25 cows, was 561 lbs.—in the other, the average from 12 cows was 533¼ lbs. Nothing can show more forcibly than these statements, the loss the farmer sustains by keeping poor cows, or half feeding good ones.

THE SEASON IN INDIANA.—Extract of a letter from H. WESTON, Esq. to the Cultivator, dated April 1:—"Cattle are dying by scores through the country, for want of forage. From the length and severity of the winter, our cattle have consumed from four to six times the ordinary quantity of food; and although winter commenced a full month earlier than usual, (Nov. 9,) it continues a month later. For the last week it has not been as rigorous as heretofore, but I yesterday hauled hay on my sled, driving three or four miles upon the river, (Iroquois,) which in many places is frozen solid to the bottom. Last year in favorable situations, prairie grass was 18 inches high, 15th of March, and we had spinnage and spring flowers. Great fears are entertained that our wheat is killed."

THE WEATHER IN S. C.—Extract of a letter from W. S. GIBBES, Esq., Chestnut Grove, S. C., to the Cultivator, dated April 4:—"We have had the most extraordinary March ever known in this part of the world. We have had hail, sleet, and three snow storms, two of them heavy and deep, within the month; the last of them on the 21st. For three weeks the thermometer was scarcely ever above the freezing point at sunrise, and was within that time as low as 22°, 26, and repeatedly 28°; and between the wet and cold, I have been able to do only six whole and two half days of plowing in the whole month of March."

RUTA BAGAS IN S. CAROLINA.—A letter from ALFRED HUGER, Esq. Longwood, St. Thomas Parish, S. C., to the editors of "The Cultivator," says—"I have raised the ruta baga, weighing ten pounds without the leaves or tops, taken promiscuously from the patch; and I have a friend near me, who has had them weigh fourteen pounds. The same land would have produced 300 bushels sweet potatoes to the acre."

NATIONAL AG. SOCIETY.—A correspondent wishes to know when the next meeting of this Society is to be held? The constitution leaves it to the Board of Control to fix the time. We have seen no notice for a meeting this season.

AMERICAN THORN.—Mr. S. PARSONS, Hoosick, quotes from Mr. DOWNING'S Cottage Residences, a recommendation of the American thorn for ornamental hedges, in which Mr. D. says that "a farmer may gather the seeds and raise them himself," and requests us to ask Mr. D. to inform us "how the American thorn can be propagated from the seed," as he does not believe it can be done—at least, we infer this from his letter.

PORTABLE SAW MILLS.—In answer to the inquiry of Mr. MCMARTIN of Hogansburgh, and Mr. CUNNINGHAM of Kentucky, we state that these mills are only manufactured by the patentee, Mr. Geo. Page of Baltimore, Md., of whom alone they can be procured. The price of the portable saw mill, with 12 feet carriage, and 24 feet ways, and 4 feet saw, is $300. Extra saws for shingles, with three pair of head blocks, $125.

☞ In answer to several inquiries for Dr. CLOUD'S address, we give it as follows:—"Dr. N. B. Cloud, P. M. Planter's Retreat, Russell co., Alabama."

PREPARATION OF GROUND AND SEED FOR PLANTING CORN.—A correspondent of Claverack, under the signature of "Gleaner," gives the following directions:—"Harrow your ground well before you furrow it, and plant nothing but good seed. If you would prevent crows from pulling it up, tar it; first soak your seed till it is swelled, say from 24 to 48 hours; then take a tub, (I take a barrel and saw it in two, which makes very handy ones,) and put your corn in; take a kettle, put a quart of water in it, heat it till hot; then stir in your tar, (a pint is enough for a bushel,) till it is melted; pour it on your corn, and mix it well; it will look as if it had a coat of varnish; dry it with plaster, and it is ready. I have done this for some years, and have no trouble with crows; but formerly I could not keep them away."

LARD OIL.—It appears from a statement which we find in the Cincinnati Gazette, that 116,944 gallons of lard oil have been made in that city during the past year. The Gazette says—"The quantity of Star and Stearine candles cannot be ascertained with certainty, but it is considerable. Lard oil is now worth, for first quality, 62½ cts; second quality, 45 cts; stearine candles, 1st quality, 25 cts; second quality 12½ cts. The consumption of this article is very rapidly increasing."

OBITUARY—Gen. JOHN ARMSTRONG, author of the "Treatise on Agriculture," noticed in our last number died at his residence in Red Hook, on the 1st of April last, in the 84th year of his age.

OIL CAKE.—In answer to the inquiry of J. T. EARLE, Esq., we state that oil cake, ground and put up in barrels for transportation, can be had in this city, at from $15 to $18 per ton. Its transportation from here to New-York, will cost about $1,50 per ton. The cost from thence to Baltimore, may be ascertained in that city.

A NEW POTATOE.—"Mons. A. Husson, of this city," says the New-Haven Farmer's Gazette, "has a beautiful variety of the Potatoe, called the Duck Bill, which he brought from France, and thinks may be cultivated here to advantage. He represents them as being great bearers—having last year obtained from one bushel of seed, 31 bushels. From one hill, where but *one* potatoe was planted, he dug *ninety-nine*. We had a sample of these potatoes last fall, and they proved to be a rich variety."

Answers to Inquiries, &c.

USE OF SALT—RECLAIMING SALT MARSH.

"MESSRS. EDITORS—I should be pleased to learn where salt has been used as a renovator of the soil, the quantity applied, and the nature of the land. I should also be pleased to learn the quickest and most effectual way to reclaim salt marsh from the tides overflowing; and if you are acquainted with any sufficiently reclaimed to produce crops other than grass, as those which may be seen on the Delaware below Philadelphia.

D. G. WEEMS."

Salt, however valuable as a manure, can hardly be called a renovator of the soil, as its use adds little if any thing to the matters constituting the actual food of plants; the best conducted experiments would show that it acts by preparing food for plants, and stimulating, or aiding them in the appropriation. Little use as yet has been made of salt in this country; in England it has acquired some favor, and its use we believe is increasing. The experiments reported by Prof. Johnston, are certainly much in its favor. It is the most effective on light or gravelly soils; and the experiments indicated that the proper quantity was from 5 to 15 bushels per acre. Where 40 bushels was used, vegetation was destroyed. It succeeded well when sown on the land in November, after the wheat was sown, but the method most recommended, is to mix lime and salt in the proportions of two of the former to one of the latter, letting the mass remain covered for one or two months, and then used by sowing the mixture at the rate of 30 or 35 bushels per acre.

As to reclaiming salt marsh, the most efficient method, and one derived from actual experience, may be found at page 52 of the Cultivator for 1841. We refer Mr. W. to this with the more confidence, as it agrees with the successful experiments made in reclaiming marsh, by A. Dey, Esq. of New-York, a number of years since.

We have no knowledge of any marsh so reclaimed, as to be capable of a course of crops, or a rotation of roots, grains, and grasses; and the experiments recorded by Mr. Welles and others would indicate that such results are rarely if ever attained. When reclaimed by embanking and draining, there is little difficulty of covering the land with the best grasses, such as herds grass and timothy, but there is not often solidity enough for other cultivation, so far at least as experiments at reclamation on our coast are recorded. In England, considerable tracts are reclaimed, and used for all purposes of cultivation, but it has been at expenses which would not be admissible in this country. In some few instances, in the reclaimed marshes below Philadelphia, crops of potatoes have been grown, and oats, but unless we are misinformed, the results were not such as to invite repetition. If any of our friends are acquainted with lands so reclaimed, as to be capable of a course of cropping, we shall be pleased to receive accounts of the process.

THE MOLE.

AT page 187, of the last vol. of the Cultivator, may be found a reply to some inquiries respecting the mole, made by Mr. CARR of St. Louis. From the account then given of the animal, we were led to suppose it might be the common meadow mole of the Atlantic states; but we have received another communication from Mr. C., in which he says the animal that gives him and others so much trouble in that region, "is furnished with a small pointed proboscis, by means of which, aided by two broad, round sort of web fore feet, with sharp claws in each, they bore a sort of furrow just under the surface of the earth, along which they pass with great speed, rendering their track visible by the earth thrown up. The hind feet and legs are more like those of the mouse. The fur is fine and of a deep lead color. Last year they obliged me to replant three or four times, large portions of my corn and other crops; besides either wholly or in part destroying in my garden and yard, a great many of my most rare and costly flower plants, shrubbery and vegetables."

The description here given determines the character of the animal; which is the Shrew mole, *Scalops aquaticus* of the naturalist. It is frequently met with in the Atlantic states, but rarely produces much mischief. Its natural food is the common earth-worm, grubs, larvæ of ants, &c., and Dr. De Kay supposes the good it does in destroying these, will compensate for the injury done to roots and germinating seeds. Where they are numerous, however, they are the pest of the gardener, defacing the beds, and uprooting the young plants. Dr. De Kay says that it is asserted they never frequent gardens in which the castor oil plant, *Palma christi*, is growing; but adds, he should place little dependence on this preventive.

In Europe, when the mole becomes troublesome, he is destroyed by professional mole catchers, or by poisoning, or by traps. It is found that if fine shreds of fresh lean beef are placed in their furrows, the moles will eat them, if found soon after deposit, and if poison, arsenic or strychnine, is placed on these shreds, they are frequently killed. The trap most recommended is one constructed on the principle of the one, a figure of which is given in the April Cultivator. Dr. Godman has given a very interesting account of the mole, and its habits; but wherever it shows itself in numbers, it is a pest of no small magnitude. For accurate descriptions, with drawings, of the various animals known under the names of moles, or mice, the reader is referred to the 1st volume of the Natural History of the State of New-York.

DOG CHURN.

"MESSRS. EDITORS—Will any of your correspondents inform me through your valuable paper, of the best and cheapest modes of manufacturing a dog churn to churn the milk or cream from nine cows. I have not seen in the Cultivator as yet, any thing to answer the purpose of this inquiry. D. BIDWELL."

Ghent, N. Y. 1843.

We should be gratified to receive from some experienced correspondent such directions as Mr. B. desires; and will add the request that they may be accompanied with a drawing, which may be engraved for the Cultivator.

STEEN KROUT.

"EDITORS OF THE CULTIVATOR—Will you be so kind as to give some directions, so that I may know the weed steen krout; as I do not know it, nor can I find any one who can inform me. A. B."

Fairfield, Ct., 1843.

The following from "Eaton's Botany," will give the description desired:—"*Lithospermum arvense*, (steen krout, stone seed, wheat thief,) stem erect, branched; leaves lance linear, rather acute, (lower ones obtuse,) veinless, hairy; calix nearly as long as the corol; segments spreading; seed rugose; height from eight to fifteen inches."

The farmer will, however, perhaps better know it by this description. Root long, tapering, and deep red, from whence one of its names, red root. A great number of branches or stems spring from each root, bearing leaves long and pointed, and downy or hairy. On the stems are clusters of blue blossoms, distinct, but not large or conspicuous. Its height in the wheat crop, varies with the soil, but is commonly from 12 to 20 inches. It is a pest to the grain grower, and it will be well, if A. B. has no more acquaintance with it, than may be derived from books.

CATTLE FOR THE SOUTH.

"MESSRS. EDITORS—I should be pleased to learn through the Cultivator, your opinion of the relative merits of the Devon and Ayrshire breed of cattle, as best suited to the South. The Durhams will not suit this latitude. (Charlotte, North Carolina, and a light soil.) The object is principally butter and beef, and sometimes for the yoke. A."

We wish to answer the question of our correspondent, in part, by asking another. Has "A." ever tried the Durhams, and satisfied himself they will not do in that latitude? The Durhams require good feed it is true, and no breed will do well without it. Devons and Ayrshires must have feed, or they will make neither beef or butter. The soil may be light, but if made rich it is precisely the soil for corn and lucerne, and if a little marl or clay should be added, clover would doubtless succeed admirably, and with these, Durhams we imagine would do well in any latitude.

If experiments properly made, have proved that the Durhams will not succeed, then for *all* the purposes mentioned by our correspondent, we should prefer the Devons. For beef and for the yoke, there are few if any breeds superior to the Devons, and if not in general equal to the Short Horns or Ayrshires for milk, still we have known some excellent milkers among them. The Devons are hardy, walk quick and lively in the yoke, and when fed make beef of excellent quality.. For milk or butter alone, the Ayrshires would doubtless be superior to the Devons, and are indeed equalled by few breeds in this, or any other country; but where the beef, and aptitude to labor are to be taken into account, we think the Devons must have the preference.

USE OF CHARCOAL.

"MESSRS. EDITORS—In your last No. there is an article on the use of charcoal as a manure, by a Virginian. A neighbor of mine, a few years since, nearly destroyed a piece of land by putting a quantity of coal upon it. The coal was taken from the kiln where it was burnt, using such only as was too small for the blacksmith. The quantity used was probably too great; or is it necessary that the coal should be pulverized. There is a good deal of coal burned here, and sometimes it is burned in the fields, and I know these spots are rendered unproductive. I hope we shall receive more information in the Cultivator on the use of charcoal as a manure.

MADISON JOHNSTON."

Boligee, Ala., March 20, 1843.

In the case alluded to by Mr. J., the quantity was doubtless too great, and it was applied in too coarse a state. All the experiments recorded by Liebig and others, of the vegetation of plants in pure charcoal, was in that finely pulverized. We cannot conceive that any moderate quantity of fine coal could destroy land, but the more intimate the union between that and the soil, the better the effect. We are aware that coal beds undisturbed, are at first barren, but we have observed that in a few years such spots always have a luxuriant vegetation. Time seems to be necessary, where no means are used, to combine the charcoal, burnt clay, &c. with the soil, to render it fit for vegetation; but where such spots are subjected to the plow at once, and the coal, burnt earth, soils, ashes, &c. fully united, they are fertile from the first. An acquaintance of ours, a blacksmith, always burned his coal in his garden, and by moving the spot, considered the process a most effectual means of keeping it rich and productive. The first crop after the burning and plowing, with him was onions, and he never failed of the finest kind. It must be added, however, that he left nothing but the finest coal, dust, &c. on the ground; all else was removed.

SUBSTITUTE FOR LINEN.

GENTLEMEN—I invite your attention to the description of a kind of native grass, said to possess in a great degree, all the valuable qualities of silk and linen, to be found in Silliman's Journal of Science, vol. 27, page 179.

With a view of its being brought into use, and more generally known and manufactured, I have offered through the medium of the Society for promoting Native Industry, &c. &c. ten dollars as my part of a premium for the BEST GROWING PLANT (*save flax,*) and *manufactured article*—together with the mode of growing the plant—saving the flax, (if I may so express it,) produced from that grass, and exhibited at the next American N. Y. Fair, to be held in this city. Hoping that through your valuable periodical, this may receive a general circulation,

I remain yours, &c. A FRIEND."

New-York, March, 1843.

We have turned to Silliman's Journal, and find the paper alluded to by our correspondent, to be a communication from a gentleman in Salem, Mass., setting forth in glowing colors the importance of the discovery made, but without naming the plant, or the material, and adding that the discovery has been patented, &c.

Unless we are much mistaken, the plant alluded to has been found to be the silk grass of our fields, or as some call it, milk weed, (*Asclepias syriaca,*) and the expectations excited at the time of its usefulness, have vanished. We give a place, however, to the note of our correspondent, as we may mistake as to the plant; and because the subject is one of considerable importance to the public. If some of the visitors to Oregon, via the Rocky mountains, would secure some of the seeds of the perennial flax described by Parker and by Farnham, we should hope to find a plant introduced, which would come much nearer the expectations of our friend than the Salem grass.

SOILS.

"MESSRS. EDITORS—I perceive that you make a difference between the mechanical or physical nature of soils, and their chemical one, so far as plants are concerned. Will you be kind enough to state more fully what is intended by these terms, and also furnish some instances, if they are known to exist, in which these respective natures have been changed, or successfully modified. A YOUNG FARMER."

The mechanical or physical character of soils, depends on their original constituents, which are usually disintegrated rocks of some kind, and composed of sand, clay, lime, and a few other matters, in smaller and varying proportions. Any of these original elements are unfit for vegetation in themselves, and the value of soils, or their capability of being made fertile, is in a great degree depending on the proportion which these several parts bear to each other, and their greater or less intimate union from fineness and mixture.

The chemical character of a soil depends on the salts it contains, and its power of changing such matters as may be combined with it, or added to it, into food for plants. Thus vegetable matter, the several gases, the mineral and vegetable alkalies, &c. &c. all go to change or modify the chemical condition of a soil. We are unable as yet to designate that condition of soil, and its various mixtures, most favorable for perfect chemical action; but every farmer who takes note of the effect of his various operations on the different soils he cultivates, is contributing his aid to the final adjustment of this most important question.

In answering our correspondent's query, as to instances in which soils have been changed or modified mechanically, or chemically, we have only to refer to a multitude of cases which have occurred within a few years, or since a more rational view of soils and their cultivation has obtained. The first is the striking one of Holkham, by Mr. Coke. In the language of Mr. Pusey, "we much doubt if that lamented nobleman, with all his enterprise, could have fed oxen where rabbits had previously browsed, as was his just boast, unless those sandy commons had *first been made solid with marl.*" Here the application of marl effected a mechanical, and we think probably a chemical effect also. They gave firmness to the sands; this was mechanical: the lime contained in the marl rendered what vegetable matter the soil contained soluble; this was chemical. Mr. Rham informs us that the Flemings have converted their sandy desert into one of the most fertile districts of Europe, by bringing up year after year, two inches of subsoil from trenches shifted every year, until they have reached a depth of two feet. This subsoil is a stiff yellow clay, containing little or no lime. Placed on the surface of their drifting sands, the clay gave solidity, and the power of retaining moisture for the use of plants. In this case, the effect, it is clear, is mostly mechanical. One of the greatest improvements in English agriculture, has been the application of clay to the large tracts of peat and peaty sand in Lincolnshire. Part of this clay is a marl, but much of it is ordinary clay, and can only act mechanically on the peat. There are many instances in which a load of clay is worth more on a soil than a load of dung. Mr. Pusey gives a case, in which the soil was of coarse gravel and sand, so porous that dung and bones

failed to produce either turneps or barley, from which, after 50 cart loads of shale per acre, had been spread over it, produced 40 bushels of barley per acre. Such shales are mostly clay, and are speedily converted into that material by atmospheric action. In this instance, it is evident, a load of clay acting mechanically, was worth more than a load of dung; and on light sandy or porous soils, such will be the result in nine cases out of ten. Dung cannot benefit land beyond a certain point; but if you change the character of the soil favorably, that point will be proportionably elevated.

In this country, the instances in which a physical or mechanical change has been effected, are very common. There are thousands of acres in New England, which within a few years have been converted from worthless muck swamps, or peat bogs, into the most valuable soils for cropping, by freeing them from their surface water, and covering the face of them with sand or gravel. For another instance, we have only to refer to the use of clay by Judge Buel, which on his sands effected as marvellous a change as did the marl of the Earl of Leicester on his. Here the greater benefits of manures on suitably constituted soils are still apparent; and it is one of the most beautiful laws that govern such matters, that when a mechanical defect in soils is in this way corrected, the beneficial results remain for years if not for centuries.

When earths in an uncombined state, as pure sand, with clay for rendering it more friable, or pure clay with sand for making it more solid and retentive of moisture, are added, the effect is mechanical only, or at least such is the first result. But when the earths in combination with salts are applied, then the action is both mechanical and chemical. The green sands and marls of New Jersey and Virginia, so extensively used, and which have been so well described by Mr. Ruffin, belong to this last class. Ashes also, are another instance when applied, of a substance acting in both ways. The potash produces its proper effect in the formation of silicates, while the drawn or leached ashes are mostly composed of silex and lime, and their action is mostly mechanical. There are cases known in which an earth used for manuring or modifying the character of soils, produces a good effect on soils very differently constituted; thus the rich marls used in Norfolk, for giving solidity to porous, sandy or gravelly soils, operates admirably on the heavy clay ones, of which some are found in the same counties. The reason is easily seen; in the one case the clay portion of the marl combines with the sand, and gives greater density and tenacity; in the other the lime and sand of the marl, unites with the clay, and renders it more friable, and more easily and profitably cultivated. It may be proper to add, there are some substances used as manures, the action of which is purely chemical. Such is common salt, soda, nitrate of potash, potash, and in general all such matters as are wholly soluble in water.

INDIAN CORN.

EDITORS CULTIVATOR—In the matter of Indian corn, there seems some diversity of opinion as to whether the white or yellow variety is most nutritious. Generally, in this section, the yellow is thought to be much the most so. The object of this communication is to draw from you any definite knowledge you may have about it; for if there is much difference in the nutriment containin the white and yellow varieties, it is of considerable importance it should be generally known. D. SMITH.

Burlington, N. J.

Strange as it may seem, the first analysis of Indian corn that has ever been made, or at least that has fallen under our notice, is the late one by Dr. Dana, and that had no reference to corn as a variety, but as a general article of nutriment. We have consequently nothing to guide us in the matter but public opinion; and this varies with the different sections of our country. At the north, yellow corn is almost universally preferred; indeed we do not recollect ever meeting with more than one person north of the Delaware, who maintained the superiority of white corn. At the south, on the contrary, the preference is decidedly given to white corn, a fact, we suppose, to be attributed rather to its superiority for making light and palatable bread than to any greater nutritive power it is supposed to possess. We hope that Dr. Dana will continue his investigations with the different varieties of this invaluable grain; for he could scarcely confer a greater favor on American agriculturists than by developing the qualities, and correcting any errors that may exist with regard to this most important of plants. Farmers, too, by feeding pigs on the different kinds of corn, and carefully noticing their gain for a certain time, might do much towards determining the question of nutritive power. At present, all must be considered mere guess work or conjecture.

CUTTING TIMBER.

"EDITORS OF THE CULTIVATOR—I have long wished to hear an opinion expressed by some of our scientific men, in regard to the proper time of cutting timber, and the cause of worms in wood. I have frequently observed axe handles, and handles of other farming implements, almost eaten up by worms, and perhaps not a hole to be seen on the outside of the wood. The question is, how come the worms in the wood, and what time of year must timber be cut, to prevent the worm from attacking it?

ADOLPHUS."

There are a multitude of insects that deposit their eggs in wood. In process of time the egg changes to a worm or grub, which feeds on the wood for a time, when it emerges from the tree and becomes a perfect insect. Of these borers those that prey on the apple, locust, &c. are most familiar. There are some kinds of timber, such as hickory, ash, and maple, which are liable to be injured by worms at times, to such a degree as to render them utterly worthless. They become what is called "powder post;" or present when broken, or cut into, little more than a fine dust, while the outside is apparently sound. Hoop poles furnish frequent examples of this insect destruction; and to avoid it, coopers prefer having their poles cut in the fall or winter; from November to February, being considered the best to secure exemption from the worm. It would appear, however, that there is a short time after the leaf has been fully formed, and the bark ceases to peel readily, in which wood if cut will be free from the worm. From some experiments, this period would seem to be in the month of June. The cause of this, doubtless is that the insect depositing the egg is not developed so early in the season; but appears immediately afterward.

THE YELLOW LOCUST AND MULBERRY.

In answer to the inquiry of "A Subscriber," at Poughkeepsie, we would state that the tree known as the *yellow* locust, is the variety grown for timber. It is raised from the seed, which we presume may be had at the seed stores in New-York. The seed does not vegetate readily, owing perhaps to the fact that they do not always come to perfection here. The following method of preparing the seed it is said will insure success:

"Place a quantity of seed in a vessel holding a quart or two, pour on boiling water, and let it stand twenty-four hours. Then decant it, and it will be found that a considerable number are softened and swelled by the operation. These are to be separated from the rest and planted; and to the remaining unswollen ones another portion of hot water is to be added, which also is to remain twenty-four hours, and a second selection made, to be planted as before. In a few days nearly the whole of the seeds will be thus prepared."

The Multicaulis and Canton are considered the best varieties to cultivate forfeeding the silk worm. In relation to the method of planting the trees, we quote the statement of Mr. Barbour of Massachusetts, before the late convention of silk growers at Northampton. He says:

"I set mine on dry, warm land, in a state of middling fertility, 4 by 2 feet, *one root in a place*, like other trees. Managed in this way, I fully believe they are safe from the dangers of winter, any where between Canada and the Gulf of Mexico. The unripe ends of the limbs may, or may not, be injured; but this is of no consequence, as they should all be headed down in the spring. On the other hand, by laying my trees, and leaving them to stand as they grow, I have lost many thousands. The reason is obvious, although, as in most cases, it is experience that has suggested that reason. *They do not form roots.* In the other way, the roots extend and fill the ground.

"In the spring, I cut my trees down within about two inches of the ground, reserving a few standing for early feed. This process adds greatly to the quantity of foliage."

THE SEASON

THE present, has been thus far, one of the most remarkable seasons for half a century. If the degree of cold has not been as great as on some other years, for a few days, the average low temperature of February and March has rarely been reached. A vast quantity of snow has fallen. The most careful observations in various parts of the state, average from 11 to 13 feet; and in Maine, we have seen one instance where the whole fall was estimated at 16 feet. Even now, April 20th, no inconsiderable portion of the northern part of the States is covered with snow, and where the fields are partially cleared, drifts of great depths line their borders. One of the consequences of this state of things is, that there is a general scarcity of fodder; and severe losses of animals from starvation and disease are reported from all quarters. The coarser grains such as corn, barley, and oats, have been mostly used up, prices have materially risen, and the effect must be felt on the wheat market, as thousands who had relied on corn or barley for bread, will find their resources in that respect cut off. What effect such long continued cold, and such a depth of snow, will have on the wheat now in the ground, cannot at present be perfectly foreseen. So far as we have seen or heard, the injury sustained has not been equal apparently to what was feared before the partial disappearance of the snow. There must be some fields, however, where the young plants that have escaped the frost, will be found smothered by the snow, as was extensively the case a few years since. Another consequence of the long continuance of cold and snow, is the serious retardation of the farmer's work for the spring, by which a vast deal of work will be thrown into the space of a few days or weeks, and the greatest economy in the management of time and labor rendered indispensable. It is not to be inferred, however, that because the season is late, it must be unproductive, or that the labor of the farmer will go unrewarded. Some of the seasons within the last half century that have been noted for their severity, and the late period to which the snow covered the earth, have been equally noted for the extraordinary productiveness of the coming summer. Fortunately, thus far, the melting of the vast body of snow has been gradual, by which the floods that would have followed their dissolution by rain, has been prevented, except in a very few instances.

AGRICULTURAL PAPERS IN NEW-YORK.

"THE PLOUGH BOY" was the first agricultural paper published in this state, and the second in the Union. It was commenced June 5, 1819, by the late SOLOMON SOUTHWICK, and by him published weekly, in quarto form, for three years, when it was discontinued for want of sufficient support to sustain it.

The next was the "NEW-YORK FARMER," originally commenced, we believe, at Huntington, Suffolk county, in 1828, by S. FLEET, but shortly after removed to New-York city, where it was published by Mr. F. for a number of years, when he disposed of it to D. K. MINOR, by whom it was continued till 1838, when its publication ceased.

THE GENESEE FARMER was commenced at Rochester on the 1st of January, 1831, by the present proprietor of "The Cultivator," and by him continued as a weekly paper, until the 1st of January, 1840, when it was united with

1. "THE CULTIVATOR," the publication of which was commenced in Albany, by Judge BUEL, in the year 1834.

THE MONTHLY GENESEE FARMER, the publication of which was commenced January, 1836, was made up from the weekly Genesee Farmer, and issued at the same office, till the consolidation of both papers with "The Cultivator."

2. "THE NEW GENESEE FARMER," now published at Rochester by CROSSMAN & SHEPARD, was commenced January, 1840, by BATEHAM & MARSHALL. It is published monthly at $1 a year.

3. "THE UNITED STATES FARMER" was commenced in New-York, January, 1842, by S. FLEET, the original publisher of the New-York Farmer, and is now published by Mr. F., monthly, at $1 a year.

4. "THE CENTRAL NEW-YORK FARMER," at Rome, was commenced January, 1842, under the editorial direction of JOHNSON & COMSTOCK. It is continued by the latter gentleman, monthly, at 50 cents a year, and edited by Messrs. COMSTOCK, JOHNSON & BEMENT.

5. "THE AMERICAN AGRICULTURIST," commenced the last year in New-York city, by the Messrs. ALLEN, is now edited by A. B. ALLEN, and published by Saxton & Miles, monthly, at $1 a year.

6. "THE TRUE GENESEE FARMER," the April No. of which only has reached us, was commenced the present year at Rochester. It is edited by N. GOODSELL, who was a contributor to the editorial department of the Genesee Farmer, for the first two years or more after its commencement. It is published by WM. A. WELLS, monthly, at 50 cents a year.

THE CULTIVATOR IN THE COTTON REGIONS.

THE testimonials we are almost daily receiving of the high estimation in which the Cultivator is held by very many of the planters of the south and southwest, are truly gratifying. We have, however, to regret that so few among the number of our friends have afforded us that assistance which we so much require, to enable us to impart to the southern reader a more immediate and personal interest in our pages. To give it this interest, it is only necessary for a few of our numerous subscribers there, to furnish us with communications on the various subjects connected with the advancement of the agricultural interests of the south—such as the improvement of their soils, the culture of their various crops, and general suggestions on the improvement of their husbandry. If we could persuade the planters to communicate their progress and improvements as freely as our northern farmers do, the interest of our southern readers would be greatly increased. We are particularly indebted to ALEX. M'DONALD, Esq. of Barbour co. Alabama, and to our friend "T." of Wilkinson co., Miss., for their very flattering notices of the value of the Cultivator. We are only deterred from publishing their favors at length, by the high commendation bestowed on our pages. "T's." letter will be found, in part, on another page of this paper, and we annex an extract from Mr. M'Donald's letter, and shall be glad to hear from both these gentlemen frequently:

"Notwithstanding nine-tenths of the pieces written, do not, and cannot apply to our southern system of husbandry, owing to the great difference in latitude between this section of the United States, and the section where the work is published, still there are hundreds of suggestions and maxims laid down throughout the volumes, that one out of a hundred is worth more to a cultivator of the soil, than a year's subscription. This region of country abounds with marl, that I have no where found so good a description of, as at page 146, of the third volume of the Cultivator. Owing to the recent settlement of the country, and the amount of fresh rich lands to cultivate, that our farmers have so easily procured, little attention as yet has been paid to the marl that abounds in all the banks of our rivers, creeks and branches. We last summer spread over our garden some of it, and from the trial we have made of it, we think it a most important manure."

"On the 18th March of last year, we had green peas on our table; to-day, (March 18,) we are apparently in the midst of winter. Scarcely any movement in the vegetable kingdom. Many of us are planting our corn over the second time."

CATTLE SHOW AND FAIR

Of the N. Y. S. Ag. Society, to be held at Rochester, September 19, 20 and 21.

List of Premiums for 1843.

I. BULLS—*Three years old and over.*

For the best, ... $20 | For the third best, ... $8
For the second best, ... 12 | For the fourth best,
Copy of the N. Y. S. Ag. Soc. Transactions.

II. BULLS—*Two years old and under three.*

For the best, ... $15 | For the third best, ... $5
For the second best, ... 10 | For the fourth best, vol. Trans.

III. BULLS—*One year old and under two.*

For the best, ... $15 | For the third best, ... $4
For the second best, ... 10 | For the fourth best, vol. Trans.

IV. BULL CALVES.

For the best, ... $10 | For the third best, ... $4
For the second best, ... 6 | For the fourth best, vol. Trans.

V. COWS—*Three years old and over.*

For the best, ... $20 | For the third best, ... $8
For the second best, ... 12 | For the fourth best, vol. Trans.

VI. HEIFERS—*Two years old and under three.*

For the best, ... $12 | For the third best, ... $5
For the second best, ... 8 | For the fourth best, vol. Trans.

VII. HEIFERS—*One year old and under two.*

For the best, ... $10 | For the second best, ... $5
For the third best, volume of Transactions.

VIII. HEIFER CALVES.

For the best, ... $8 | For the second best, ... $5
For the third best, volume of Transactions.

IX. COWS—*Cross between the native and improved breeds.*

For the best, ... $12 | For the third best, ... $6
For the second best, ... 9 | For the fourth best, vol. Trans.

X. HEIFERS—*Cross between the native and improved breeds, between two and three years old.*

For the best, ... $10 | For the third best, ... $5
For the second best, ... 7 | For the fourth best, vol. Trans.

XI. HEIFERS—*Cross between the native and improved breeds, over one and under two years old.*

For the best, ... $10 | For the second best, ... $5
For the third best, volume of Transactions.

XII. COWS—*Native breed, (not having any imported blood.)*

For the best, ... $10 | For the third best, ... $5
For the second best, ... 8 | For the fourth best, vol. Trans.

XIII. HEIFERS—*Native breeds between two and three years old.*

For the best, ... $10 | For the second best, ... $5
For the third best, volume of Transactions.

XIV. DAIRY COWS—*Of any breed.*

For the best dairy cow, from which shall have been produced in thirty successive days, the greatest quantity of butter—quality as well as quantity considered—which shall be exhibited at the time, ... $15 | For the third best, ... $5
For the second best, ... 10 | For the fourth best, vol. Trans.

No premium will be awarded unless an accurate statement of the manner of feeding the cow, management of the milk, and method of making the butter, the time it was made, the breed of the cow, if known, the time after calving—the cow as well as the butter to be exhibited at the time, with certificates from the person or persons who milked and managed the cream, and churned the butter.

WORKING OXEN—*Over four years old.*

For the best pair, ... $15 | For the third best, ... $5
For the second best, ... 10 | For the fourth best, vol. Trans.

STEERS—*Three years old.*

For the best pair, ... $10 | For the second best, ... 5
For the third best, volume of Transactions.

In awarding these premiums, particular reference will be had to the close matching, excellent training, and docility of the animals, as well as their general good appearance.

FAT CATTLE.

For the best fat ox, cow or steer, ... $20 | For the second best, ... 12 | For the third best, vol. Trans.

FAT SHEEP.

For the best wether, ... $10 | For the second best, ... $5
For the third best, volume of Transactions.

Applicants for the premiums on fat cattle and sheep must furnish a statement of the manner of feeding the animal, the kind, quantity and cost of food, to entitle them to premiums.

ON HORSES—*Over four years old.*

For the best stallion, ... $20 | Best breeding mare & colt, $20
For the second best, ... 12 | For the second best, ... 12
For the third best, ... 8 | For the third best, ... 8
For the fourth best, vol. Trans. | For the fourth best, vol. Trans.

For best pair of matched horses, $15

For the second best, ... $10 | For the fourth best, volume of
For the third best, ... 5 | Transactions.

Three year old Studs and Mares.

For the best stud, ... $10 | For the best mare, ... $10
For the second best, ... 5 | For the second best, ... 5
For the third best, vol. Trans. | For the third best, vol. Trans.

A variety of horses possessing size, strength and endurance for field labor, combined with that action which qualifies for the carriage or saddle; in short, the *horse of all work*, is probably the most profitable class which our farmers can now engage in rearing, and to such, therefore, will the preference of the Society be given.

SWINE—*Over ten months old.*

For the best boar, ... $10 | Best breeding sow, ... $10
For the second best, ... 8 | For the second best, ... 8
For the third best, ... 5 | For the third best, ... 5
For the fourth best, vol. Trans. | For the fourth best, vol. Trans.

In awarding premiums on hogs, reference will not be had exclusively to size or to present condition, but to that form and that proportion of bone and offal to more valuable parts, which promises the greatest value from the least amount of feed.

SHEEP—I. Long Wooled.

For the best buck, ... $10 | For best pen of 3 ewes, ... $10
For the second best, ... 8 | For the second best, ... 8
For the third best, ... 5 | For the third best, ... 5
For the fourth best, vol. Trans. | For the fourth best, vol. Trans.
For the best pen of 5 lambs, $5.

II. Middle Wooled.

For the best buck, ... $10 | For best pen of 3 ewes, ... $10
For the second best, ... 8 | For the second best, ... 8
For the third best, ... 5 | For the third best, ... 5
For the fourth best, vol. Trans. | For the fourth best, vol. Trans.
For the best pen of 5 lambs, $5.

III. Fine Wooled.

For the best buck, ... $10 | For best pen of 3 ewes, ... $10
For the second best, ... 8 | For the second best, ... 8
For the third best, ... 5 | For the third best, ... 5
For the fourth best, vol. Trans. | For the fourth best, vol. Trans.
For the best pen of 5 lambs, $5.

The term "long wooled" is designed to include the Leicesters, Lincolns, Cotswolds, and all the English varieties of sheep which furnish the quality of wool suitable for combing—the "middle wooled," the South Down, the Norfolk, Dorset, Cheviot, native, &c. The "fine wooled," the Spanish and Saxon varieties of the Merino and some of their crosses.

FARM IMPLEMENTS.

For the best plow, ... $50 | Best threshing machine, .. $20
For the second best, ... 30 | For the second best, ... 10
For the third best, ... 20 | For the third best, 2 vols. Tr.
For the fourth best, vol. Trans. | For the best horse rake, .. 8
For the best subsoil plow, 20 | For the second best, ... 5
For the best harrow, ... 8 | For the third best, vol. Trans.
For the second best, ... 5 | Best fanning mill, ... 8
For the third best, vol. Trans. | For the second best, ... 5
For the best cultivator, .. 8 | For the third best, vol. Trans.
For the second best, ... 5 | For the best straw cutter, 8
For the third best, vol. Trans. | For the second best, ... 5
For best grain & seed drill, 8 | For the third best, vol. Trans.
For the second best, ... 5 | Best improved ox yoke, .. 5
For the third best, vol. Trans. | For the second best, vol. Tr.

Implements not presenting any new and valuable improvements will not be entitled to premiums. Implements and machines must be tested as far as possible, in the presence of the committee.

BUTTER AND CHEESE.

For best sample of butter, not less than 80 pounds, $20 | For best sample of cheese, not less than 100 lbs., .. $20
The second best, ... 12 | The second best, ... 12
The third best, 2 vols. Trans. | The third best, 2 vols. Trans.

The butter offered for premiums must be presented in butter tubs, jars or firkins.

The claimants for premiums on butter, must state in writing the time when it was made; the number of cows kept on the farm; the mode of keeping; the treatment of the cream and milk before churning; the mode of churning, winter and summer; the method of freeing the butter from the milk; the quantity and kind of salt used; whether saltpetre or any other substances have been employed.

Those who present cheese for the premiums offered, must state in writing the time when it was made; the number of cows kept; whether the cheese is made from one, two or more milkings; whether any addition is made of cream; the quantity and kind of salt used; the quantity of rennet used, and the mode of preparing it; the mode of pressure, and the treatment of the cheese afterwards.

MAPLE SUGAR—50 POUNDS.

The best specimen, ... $15 | The third best, ... $5
The second best, ... 10 | The fourth best, vol. Trans.

Applicants for the premiums on maple sugar will be required to furnish a statement of the manner of making and clarifying the sugar.

CORNSTALK SUGAR.

For the best experiment in the manufacture of sugar from cornstalks, from one acre of northern corn cultivated for the purpose, and the juice extracted by iron rollers so as to obtain the maximum quantity of sugar; with a full account of the process and expenses, ... $100·00

ON SILK.

Best half bushel cocoons, $15 | For the third best, ... $5
For the second best, ... 10 | For the fourth best, vol. Trans.
For the third best, ... 5 | Best specim'n manuf. silk, 15
For the fourth best, vol. Trans. | For the second best, ... 10
Best pound of reeled silk, .. 15 | For the third best, ... 5
For the second best, ... 10 | For the fourth best, vol. Trans.

SILK REEL.

For the best, ... $10 | For the sec'd best, vol. Trans.

DOMESTIC MANUFACTURES.

Best pr. woolen blankets, $5 | For the best hearth rug, .. $3
Best 10 yd's of flannel, ... 5 | Best 12 yards Kersey, ... 3
Best 12 yd's 4 woolen cloth 5 | Best 15 yards rag carpet, 3
Best 15 y'ds wool carpet, .. 5 | Best 15 yards tow cloth, .. 3
Best do'ble carpet coverlet 5 | Best pound sewing thread, 2
Best ten yards linen, ... 5 | Best pair knit stockings, .. 1
Best 12 yards linen diaper, 5 | Best pair wove stockings, . 1

ON VEGETABLES.

For 6 best stalks Celery, .. $2 | 2 best purple egg plants, .. $1
3 best heads Cauliflower, . 2 | Best h'f peck Lima beans, . 1
3 best heads Broccoli, ... 2 | Best h'f peck Windsor do. 1
12 best white table turneps 1 | Best bunch double parsley 1
For the 12 best Carrots, .. 1 | For the 3 best Squashes, .. 1
For the 12 best table Beets 1 | For the largest Pumpkin, . 1
For the 12 best Parsneps, . 1 | 12 best ears seed corn, ... 1
For the 12 best Onions, ... 1 | Best h'f p'k table potatoes, 2
3 best heads of Cabbage, .. 1 | For the 2d best half peck
For the 12 best Tomatoes, 1 | table potatoes, ... 1

Best variety Seedling Potatoes, $5.

Discretionary premiums will be awarded on choice garden products not enumerated above.

ON FRUITS.

For the greatest variety of table Apples, $5.
For the second greatest, .. $3 | For the third greatest, vol. Tr.
For the best twelve sorts, not less than three of each, $3.
Best new Seedling Apple, $5.
For the greatest variety of table pears, $3.
For the second greatest, ... Vol. Transactions.
For the greatest variety of Winter Pears, .. " "
For the best twelve Quinces, ... " "
For the best twelve Peaches, ... " "
For the best twenty-four Plums, ... " "
For the best six bunches of native Grapes, . " "
For the best six bunches of foreign Grapes, . " "

ON FLOWERS.

For the greatest variety and quantity, $5.
For the second greatest, .. $3 | For the third greatest, vol. Tr.
For the best Floral Ornament, $5.
For the second best, ... $3 | For the third best, vol. Trans.
For the best S'd'l'g Dahlia, $3 | For the second best, ... $2
For the best twenty-five varieties of Dahlias, $5.
For the second best, ... $3 | For the third best, vol. Trans.

PLOWING MATCH.

First premium, ... $15 | Third premium, ... $5
Second premium, ... 10 | Fourth premium, vol. Trans.

Each competitor will be required to plow one-fourth of an acre of sward land in 75 minutes; the furrows not to be less than 12 inches wide and 6 deep—plowman to drive his team.

FIELD CROPS.—(*At the Winter Meeting.*)

Best crop of wheat, not less than two acres, ... $15 | The third best, 2 vols. Trans.
The second best, ... 10 | Best crop Indian corn, not
The third best, 2 vols. Trans. | less than 2 acres, ... $15
Best 2 acres spring wheat, 15 | The second best, ... 10
The second best, ... 10 | The third best two vols. Trans.

For the best crop of Barley, not less than two acres, $10.
The second best, ... $5 | The third best, vol. Trans.
For the best crop of Rye, not less than two acres, $10.
The second best, ... $5 | The third best, volume Trans.
For the best crop of Oats, not less than two acres, $10.
The second best, ... $5 | The third best, volume Trans.
For the best crop of Potatoes for the table, not less than one acre, ... $10
The second best, ... $5 | The third best, volume Trans.
For the best crop of Potatoes, quantity considered, not less than one acre, ... $10
The second best, ... $5 | The third best, volume Trans.
For the best crop of Sugar Beets, not less than half an acre, $10
The second best, ... $5 | The third best, volume Trans.
For the best crop of Mangel Wurzel, not less than half an acre, ... $10
The second best, ... $5 | The third best, volume Trans.

For the best crop of Ruta Baga, not less than one acre, $10.
The second best, ... $5 | The third best, volume Trans.

The best crop of Carrots, not less than one acre, $10.
The second best, ... $5 | The third best, volume Trans.

The best crop of Peas, not less than one acre, $10.
The second best, ... $5 | The third best, volume Trans.

Those who present claims to premiums for farm crops, must state in writing the following particulars:—The condition of the soil at the commencement of cultivation for the crop; the previous crop and cultivation, and quantity of manure used upon it; the quantity and kind of manure the present season; the quantity and sort of seed used; the time and manner of sowing, cleaning, and harvesting the crop; the amount of the crop determined by actual weight or measurement; and the expense of cultivation. The land shall be measured by some sworn surveyor, and the claimant of the premium, with two other persons who assisted in measuring, shall certify under oath as to the quantity produced from the piece of land mentioned in the certificate of the surveyor.

ESSAYS.

(*For publication in the next volume of Transactions.*)

For the best essay on the different varieties of wheat, ... $20
For the best essay on the diseases and insects injurious to the wheat crop, ... 20
For the best essay on subsoil plowing; with the results of actual experiments in the State of New-York, ... 20
For the best essay on the introduction and culture of new agricultural products, ... 20
For the best essay on the diseases of silk worms in this climate, and the means of prevention and cure, ... 20

DISCRETIONARY PREMIUMS

Will be awarded for such implements and products not enumerated above, as shall be deemed worthy of notice and encouragement.

RULES AND REGULATIONS.

Applicants for premiums are requested to pay particular attention to the notes attached to the premiums on Dairy Cows, Fat Cattle and Fat Sheep, Butter and Cheese, Field Crops, and Sugar.

The statements required from those who compete for field crops, must be sent to the Recording Secretary, Albany, previous to the 1st of January, 1844, and the premiums will be awarded at the annual meeting of the Society, on the third Wednesday of January.

All premiums will be paid in cash or plate, at the option of the winners.

The premiums for Essays and for Agricultural Implements, will be open to the United States; but all others will be confined to residents of this state, who are members of this Society, or who may become so by the payment of one dollar on entering their articles.

Competitors for the premiums on Essays, must forward their manuscripts to the Recording Secretary, at Albany, previous to the 1st of January, 1844, free of postage.

☞ Particular rules and regulations of the exhibition, together with the list of awarding committees, will be published hereafter.

CHEMICAL ANALYSIS OF INDIAN CORN.

Foreign chemists have furnished us with the analysis of most of the articles used as food, but no analysis of maize has yet appeared; and to Americans, there is no substance of which an accurate analysis has been more desired. This has now been done by Dr. Dana for the New-England Farmer; and for the purpose of comparison, ruta bagas and potatoes added. The great difference of what Dr. Dana calls the fat forming principles in favor of corn, will excite but little surprise in those who have witnessed the effects of the several substances on animals, and will go far to establish the position assumed by Payen and Boussingault, (for which see another part of this No.,) that plants are valuable for giving fat to animals, only in proportion to the vegetable oils ready formed such plants contain. Now corn is known to be one of the richest in oil, and as a natural consequence should possess the most active fattening powers. We copy the table of Dr. Dana from the N. E. Farmer.

100 *lbs. of Corn.*	*Ruta Baga.* fresh dug.	*Potatoes.* fresh dug.
Contain of flesh forming principles:		
Gluten, albumen, &c., ... 1·26	1·	2·07
Fat forming principles: gum, starch, sugar, woody fibre, oil, &c., ... 88·43	13·	24·34
Water, ... 9·	85·	72·
Salts, ... 1·31	1·	1·39

COST OF KEEPING HORSES.

The city weigher of Boston has furnished the Massachusetts Plowman the following table of the quantity of hay, straw and grain used at the city stables during the year 1841, for 49 horses. Such tables are useful, as placing the great points of expense in a clear light. Common farmers are not generally able to ascertain the actual cost of keeping animals; but where all the food is purchased, and accurate accounts rendered, the difficulty does not exist. It appears to us that the expense per week is slightly greater than has been made in some former reports.

Hay, 186,267 lbs., which cost	$1,787 63
Straw, 24,850 " "	133 15
Meal, 3,500 bushels, at 75 cents, ...	2,520 00
Oats, 1,555 " 50 "	777 50
	$5,218 28

Averaging for each horse per week:

Hay, ...	73 lbs.
Straw, ...	10¼ "
Grain, about	2 bushels.

Cost per week of keeping each horse, $2,04 4-5, or about 29¼ cents per day.

NOTICES OF NEW PUBLICATIONS.

Transactions of the New-York State Agricultural Society, together with an Abstract of the Proceedings of the County Agricultural Societies for the year 1842.

THIS Report of the State Society, being the second volume of the Transactions, makes a volume of upwards of 400 pages; and we have no hesitation in saying that in the general value of the papers, and the extent of information embraced in them, it will be found superior to its predecessor, and equal at least to any work of a similar nature yet published in this country.

It embraces the Annual Report of the Executive Committee of the State Society; the Addresses of Governor Seward and President Wadsworth; Reports of Committees and Awards of Premiums at the October and the annual meetings; Prize Essays on Manures, Farm Management, and Designs for Farm Buildings; papers on the agriculture of some fifteen of the counties of the State, of Indiana, and of Maryland; papers on various agricultural topics from J. M. Weeks, C. N. Bement, D. Thomas, R. Harmon, J. H. Hepburn, George Randall, H. S. Randall, J. J. Thomas, S. W. Jewett, W. Chapman, T. Mellen, H. H. Hopkins, Holkham, and A. Walsh; and Reports and Transactions of thirty-two of the County Agricultural Societies of the State. We should be happy to make liberal extracts from many of these papers and reports, and shall doubtless have occasion to make frequent reference to them hereafter; at present, we have only room for the following table, which we have compiled from the County Society returns. We regret that the imperfection of some of the returns has not permitted this abstract to be as perfect as we should have desired. It only embraces some of the principal premium crops, of which returns were made. Fractions are omitted.

Name of Society.	*Wheat.*	*Corn.*	*Barley.*	*Oats.*	*Potatoes.*	*Turneps.*	*Carrots*	*Beets.*
Chemung Co. Ag. Soc.,	22	99	..	..	306	..	..	..
Clinton "	..	..	..	66	..	..	..	..
Dutchess "	30	107	..	..	376	700	..	990
Delaware "	33	73	..	67	402	1232	..	..
Erie "	..	57	42	67	..	1000	1124	1280
Greene "	..	97	..	87	..	..	..	866
Kings "	40	72	..	..	..	..	..	..
Madison "	32	117	..	..	..	..	..	..
Monroe "	..	82	46	91	400	..	630	985
Niagara "	52	107	57	..	..	..	..	..
Oneida "	31	95	64	112	678	..	..	..
Onondaga "	..	96	..	..	419	..	..	..
Orange "	..	102	..	77	360	..	..	..
Oswego "	29	89	..	..	338	800	648	..
Otsego "	22	78	55	84	320	..	..	..
Saratoga "	29	137	..	..	366	..	..	..
Suffolk "	..	80	..	..	368	..	..	..
Tompkins "	26	107	46	..	406	..	..	1724
Washington "	29	80	..	97	510	..	..	..
Wayne "	30	99	..	67	376	1098	.	..

This table exhibits in a striking manner what our soils are capable of when manured and cultivated as land should be. There is no mystery in the production of 100 bushels of corn, 40 of wheat, 50 of barley, 400 of potatoes, and so of other crops. Heavy manuring and careful cultivation are the things wanted; less land and better crops; or, if we will hold on to our hundreds of acres, more capital employed in their tillage.

The paper on sheep breeding by Mr. Jewett will well repay perusal. He has accompanied it by a capital portrait of one of his stock Merino bucks, and from which last June he sheared thirteen and one-fourth pounds of washed wool, it being his third fleece. By the way, we are informed in a private note from Mr. Jewett, that his celebrated Paular Merino buck, a portrait of which has appeared in a former volume of the Cultivator, is to be sent into one of the central counties of this state the ensuing summer, where, we doubt not, it will be properly appreciated.

We congratulate the public on the appearance of this volume of the Transactions. It contains the most ample evidence of the deep hold the cause of agricultural improvement has taken, and of the benefits which are flowing from the well timed and well appropriated aid received from the state, and will form a valuable contribution to the permanent agricultural literature of the day.

JOHNSTON'S FARMER'S ENCYCLOPEDIA.—We procured a copy of this costly English work at the time it was published, and think it an excellent manual of agriculture. We are glad, therefore, that Messrs. CAREY & HART have commenced its publication in a cheap form, and with such additions and alterations as to better adapt it to the wants of the American agricultural public. There is in some quarters a most unworthy prejudice against all foreign farming; but we venture to say there is not a farmer in the United States that cannot derive many useful hints and much valuable information from this Encyclopedia; and when we recollect that this improved edition costs only four dollars, or about one-third the price of the English edition, we cannot doubt it will receive a liberal support. It is published in semi-monthly numbers, has numerous wood cuts, sixteen beautiful plates, and will be completed in 16 Nos. at 25 cents each.

TRIP TO OREGON.—We have read with much interest Mr. Farnham's account of his journey from Missouri to the Pacific, just published in a cheap and neat form at the Tribune office, New-York. If there is a country in which desolation runs riot, it must be in that which travellers are obliged to cross in this journey to the far west. Still among these mountains and deserts there are a few spots of the most interesting and inviting kind. Such a one is described at page 54, in the valley of Grand river: "The glades that intervened were more beautiful than I had seen. Many were covered with a heavy growth of timothy or herdsgrass and red top, in blossom. Large tracts in the skirts of the timber were thickly set with sweet sicily. The mountain flax was very abundant. I had previously seen it in small parcels only; but here it covered acres as densely as it usually stands in fields, and presented the beautiful sheet of blue blossoms so grateful to the lords of the plow. I had noticed some days previous, a few blades of the grasses just named, standing in a clump of bushes, but we were riding rapidly, and could not stop to examine them, and I was disposed to think that my sight had deceived me. What! the tame grasses of Europe, all that are the most valuable for stock, the best and most sought for by every intelligent farmer in christendom; these indigenous to the vales of the Rocky Mountains? It was even so." Those who love adventure, and those who wish for a faithful account of that distant part of the United States, will read Mr. Farnham's book.

"THE HONEY BEE."—Messrs. CAREY & HART, Philadelphia, have issued a cheap edition of "The Honey Bee: its natural history, physiology and management, by Edward Bevan." It is a closely printed octavo, of 128 pages, with about thirty engravings of plans of hives, &c., all for 31 cents. Every bee-keeper should have a copy, and we particularly recommend it to our correspondent, Mr. Palmer of New Marlboro'.

AMERICAN ECLECTIC AND MUSEUM OF FOREIGN LITERATURE.—A large portion of our literature is derived directly or indirectly from foreign sources, and principally from their periodicals. With many valuable papers, they contain much that is most pernicious and worthless, and the separation of the wheat from the chaff is imperiously demanded. The most successful effort to perform this, is effected in the work before us, which is published in monthly numbers of 144 pages each, at $6 per annum; J. H. Agnew of New-York, editor. The elevated character and high moral tone of the work, should insure it a large circulation.

NORTH AMERICAN REVIEW, *April*, 1843.—This No. contains its usual supply of valuable reading articles; among which are papers on the Exploring Expedition, Muller's Elements of Physiology, Alison's History of Europe, and the Treaty of Washington. The reasoning of the German physiologist on the subject of the production and organization of those singular animals, the Entozoa and animalculæ, will attract the attention of the curious. Is philosophy about to disclose the line that separates animal from vegetable life, or show that they usually blend and run into each other?

SILLIMAN'S JOURNAL FOR APRIL.—This number is full of interesting papers. Among them is a Notice of the Life and Labors of De Candolle, "the Linnæus of our age," whose death occurred in 1841—Superban Geology, or rocks, soil, and water, about Richmond, Ind., by Dr. J. T. Plummer—A Catalogue of the Birds of Connecticut, by Rev. J. H. Linsley, together with articles by Professors Gardner, Litton, Salisbury, Locke, and Messrs. Lockwood, Dove, Tuomey, Owen, Hildreth, Taylor, Redfield, Hayden, Buckley, &c., and a notice of the great comet of the present season, by Prof. Silliman.

AGRICULTURAL CLUBS.

A FARMER'S CLUB has been formed by our friends near Wilmington, Del., on a somewhat novel plan. It consists of twelve members only, who meet on the first Tuesday of each month, at the house of one of the members in rotation, at 10 o'clock, A.M., when "an examination," says the Delaware Gazette, "is made by the club of all that pertains to the farm, stock and cultivation of their host—his fields, his fences, farming utensils, mode of applying manure, rotation of crops, &c., &c. The conveniences and accommodations of his farm house, barn, piggery and poultry yard, are all matters of observation and discussion. At an early hour a plain farmer's dinner tests the thrift and cookery of his *better half*—her bread and butter, her savory meats and pies, well fatted poultry, her cheese, milk and cream, rich, fresh and cool from the just admired dairy, all afford practical themes at the dinner for discussion of their merits, and of woman's worth; as far as practicable, the products of the farm are required to be used for this part of the entertainment. Politics and political matters are at no time alluded too or admitted. After dinner, agricultural subjects are discussed and experiments reported; agricultural works and journals exchanged, noxious weeds noticed, and all the agricultural improvements and publications since the last meeting are passed upon and reviewed—seeds, plants, new grains, &c., distributed —the entertaining member for the next month is agreed upon, and the club adjourns, *always early* to attend to the *feeding and foddering at home*, before dark. The gentlemen who compose this club, consist of Messrs. Bryan Jackson, C. P. Holcombe, John W. Andrews, Jesse Gregg, Samuel Canby, Henry Dupont, J. Boies, J. W. Thomson, Francis Sawden, William Boulden, George Lodge, and Major Joseph Carr."

HOT AIR FURNACE.—A subscriber wishes to know the cost of the hot air furnace, stove, drums, grates, and other fixtures, manufactured at Palmyra, N. Y. Will J. J. T. inform us?

MR. COLMAN'S TOUR.

OUR readers will be gratified to learn that Mr. Colman's proposed visit to Europe, for the purpose of making an agricultural survey, has been received with such favor as to warrant the undertaking. The subscription to his work, which now amounts to upwards of 2,000 copies, embraces the following, the several societies having subscribed for it with the view of distributing the volumes as premiums:

New-York State Ag. Society, New-York, for	100	copies.	
Massachusetts Ag Society, Massachusetts,	"	100	"
Worcester Ag. Soc., Worcester co., Mass.,	"	40	"
Philadelphia Ag. Society, Pennsylvania,	"	40	"
American Institute, New-York city,	"	40	"
Essex Ag. Society, Essex county, Mass.,	"	25	"
Mass. Horticultural Society, Boston,	"	25	"
Monroe Ag. Society, Monroe co., N. Y.,	"	25	"
Livingston Co. Ag. Society, Geneseo,	"	10	"
Berkshire Co. Ag. Soc., Pittsfield, Mass.,	"	10	"
Hampshire, Hampden, and Franklin county Agricultural Society, Northampton,	"	10	"

Two gentlemen have subscribed for 100 copies each.

One	do	do	50	"	
Twelve	do	do	25	"	"
Eight	do	do	10	"	"
Forty	do	do	5	"	"

Having completed his arrangements for the publication of his work, the first part of which may be expected about the first of January next, Mr. Colman sailed from New-York on the 6th of April, in the packet ship Independence, Captain Nye. He contemplates an absence of two or three years. In the mean time, his work will be published in parts, at Boston, by his general agent, Mr. ARTHUR D. PHELPS, at intervals of two or three months, until the whole is completed.

We anticipate the happiest results from this mission of Mr. COLMAN. He goes abroad under the most favorable circumstances, having the aid and countenance of Mr. Webster, Secretary of State, and Mr. Everett, minister to St. James, both of whom are his personal friends; while his high character and his intimate acquaintance with the agriculture of his own country, will make him an able exponent of its interests, and every where a most acceptable guest. These advantages, with his happy tact of collecting and arranging facts, will enable him to give the American farmer a work of the highest value. That it will be waited for with impatience, and received with gratification, we cannot doubt.

FAT IN ANIMALS.

THE recent demonstration by Liebig that plants furnish, ready formed, all the essential elements of animal matter, such as the fat, albumen, and fibrine, has to all appearance very greatly simplified the processes by which animals are fattened. Formerly it was necessary to suppose a variety of changes which the food must undergo, previous to its conversion into flesh or fat; now, simple appropriation of substances already formed, and in reality requiring no change, is all that is required on the part of the animal.

Messrs. Payen and Boussingault have lately been conducting a series of experiments to test the principles of the German philosopher, in which they find no cause of dissent, so far as the presence of the several constituents of flesh in the food is concerned, though they express some doubts as to the fact that no more fat is formed in the animal than is taken with the food. Messrs. P. & B. have endeavored to determine the fattening power of maize. Farmers have long known that corn contained fat or oil; accurate experiment proves that it amounts, in good corn, to 9 per cent. A lean goose was fed 24 lbs. of corn, when it was killed, and 3½ lbs. of fat taken from it. Allowing it to have contained at first 1¼ lbs. of fat, it had gained from the corn 2¼ lbs., which is very nearly the proportion the 24 lbs. of corn would have furnished. Hay is found to contain about 2 per cent. of fat. The fattening ox, and the milch cow, always furnish less fatty matter than their food contains. There is no process by which the fat, fibrine and albumen of plants, can be so fully extracted, and prepared for use, as is done by the milch cow. These are furnished in the milk; the fat given off in the butter, and the fibrine and albumen in the remaining milk. The French chemists are preparing their researches for the public, and every step in the progress of chemical analyses will be looked for with interest.

VITALITY OF SEEDS.—It is stated in some of the English newspapers, that in consequence of some new arrangement of part of Bushy Park, a parcel of ground which has been undisturbed since the time of Charles I., was plowed up last winter. In the spring, a plentiful growth of mignionette, pansies, and wild raspberries, none of which grow in the neighborhood, shot up spontaneously. It is inferred that these seeds had remained in or on the ground for that term of time, retaining their germinating powers, and only requiring to be covered by the plow to vegetate. Raspberry seeds taken from an urn, of the age of the Roman occupation of Britain, have vegetated freely; and wheat from the mummies of Thebes, some 3,000 years old, is now flourishing in the Jarden des Plants.

WOOD'S PATENT PLOW CULTIVATOR.—We have been favored with a cut of this valuable cultivator, which will appear next month. It is manufactured by R. B. Doxtater, Adams, Jefferson co., N. Y., and is for sale by Messrs. Starbuck & Sons, Troy, and Mr. Thorburn in this city.

EFFECTS OF THE PAST WINTER.

NEVER since we commenced publishing an agricultural journal, have we received such distressing accounts of the sufferings of stock consequent on prolonged cold weather and scarcity of fodder, as have reached us during the past month from various parts of our country. In spite of the greatest efforts, and the dividing with their cattle the grain reserved for their families, many farmers have lost large portions of their animals, and the remainder are in such a wretched condition, that no small part of the summer will be required to restore them to the state in which the winter overtook them. These results may be attributed to several causes; some of which were without our control, while proper precaution and forethought would have remedied the others. We call the attention of our farmers to these matters now, in the hope that the severe lesson so many have received, will, by inducing the necessary precautions hereafter, prevent such accumulated disasters.

One of the causes to which we have alluded as beyond our control, is the great length and extreme severity of the past winter. Most farmers began to fodder their stock by the middle of November, and up to the middle of April, or indeed to the present time, there has not been the cessation of this labor for a single day, or at least one in which supplies of food were not necessary. All farmers are aware that the quantity of food consumed by stock in a given time, is greatly depending on the temperature; the colder the air, the greater the quantity of food required and consumed. The almost unprecedented cold and storms of February and March, have caused a consumption of fodder for which farmers were not prepared; and the heavy bodies of snow which covered the country till the middle of April, prevented the animals from gleaning those scanty supplies which, had the ground been bare, might have enabled them in some cases to sustain life. Another cause beyond our control, was the inferior quality in general of the fodder provided by the farmer for winter use. In a considerable part of our country great dependence is placed on the straw of the smaller grains for keeping cattle and horses not required for labor, and the straw of last harvest was, as all know, of the worst quality. The most of the hay too, although saved in tolerable condition, had been immediately previous to cutting so washed and soaked by the heavy rains, that its nutritive qualities had been much diminished. It was a common remark among experienced farmers that the hay crop of 1842 "could not spend well;" and the result has proved they were correct. So far, the farmers cannot be held responsible; not so, however, for the causes of scarcity and distress which follow.

And first, many farmers were overstocked. Some were sensible of this; they knew so far as fodder was concerned "they were short," but they could not think of selling at such low prices; and besides, there might be an *open* winter, which would enable their animals to get a living by hook or by crook. We cannot think such men can be viewed in any other light than that of criminals.

Secondly; many farmers had taken no pains, or been at no expense to render their animals comfortable. The farmer who understands his true interests, who is aware of the vast saving that is made in the quantity of fodder by warm comfortable yards and stables, and provides them accordingly, is rarely obliged to put his animals on short allowance, or invite his neighbors to help set them on their legs in the spring. The farmer whose barns are without yards or stables, who relies on rail fences to keep his hay from blowing away, whose animals spend the long winter nights shivering on the lee side of a stack, or a snow drift, must expect to find his stock of fodder failing, and his animals in such a condition that his neighbor the tanner may safely calculate on their hides.

There is another serious fault justly chargeable on most farmers, and that is, not feeding out the winter food of their animals, in the best and most economical manner. A very large proportion of their fodder is wasted, by being fed in such a way that the animal is unable to convert it into food. Cornstalks constitute one of the most nutritive kinds of food, yet when the farmer saves them at all, two-thirds of their real value is lost in feeding; the animal can eat nothing but the leaves and the smaller parts of the stalk, while the large part that contains the most nutriment of the whole is necessarily rejected. A cutting machine, by converting these large stems to chaff, would give many an excellent meal to animals, which is now lost to them. So with coarse clover. Animals will almost as soon eat bean poles as clover stems, but reduce the whole to chaff, and it is alike grateful and nutritive. Straw should always be cut; and if a little brine is sprinkled over it, it will be more readily eaten.

But if it is too late to correct the errors of the past year we can now begin to take measures to prevent their repetition. It is so much better to have a little more than enough, that the farmer is inexcusable who does not take warning by the lessons of the past winter, and make liberal arrangements to secure his stock against the sufferings and casualties to which they are exposed. Let no one depend entirely on hay and straw. Even if he has enough of these, there are other things that should be added, to secure continued health and good condition. All animals should have some green food with the dry; potatoes, turneps, or carrots, with the hay and straw. The farmer should have enough of these to furnish a small quantity daily to every animal; and to do this his calculations must be made in season. There must be planting, cultivating, and harvesting, before they can be had for stock, and roots require the most of the season for their perfection. Let farmers, too, who have struggled through the winter with much difficulty, and wish to guard against the recurrence of such trouble, plant or sow an acre or two of corn, not for soiling, (though it should not be neglected for this purpose,) and when at its full growth, cut it and cure it for winter use. Numerous experiments prove that, on good land, six tons of cured stalks may be considered certain; and if so, there are few ways in which so much good fodder can be secured from an acre. In any event, the farmer can reduce his stock in the fall to the standard of his food; and he should do so, until there is an absolute certainty he is on the safe side. Straw cutters and stalks will greatly lengthen out his stock of fodder, and no man ever has cause to regret his expenses in preventing suffering, or adding to the comfort of his domestic animals.

HINTS FOR MAY.

THE unusual duration of the winter, has, in the north, so far retarded spring work as to throw its various operations together, and render necessary a greater economization of time than usual. Farming operations must be planned with reference to this fact, and the work first needed must be first performed.

Spring wheat must be sown early, or there is little use in sowing it at all; the ground should be clear, otherwise the weeds will get the start of the slower germinating wheat.

Barley and oats may be sown later. Where these crops are grown on lands infested with the thistle, (a bad practice by the way,) the sowing should be delayed until the ground is warm and in fine condition, that the check given the weeds by the last plowing may enable the seeds to germinate and the plants get start of the weeds. If this is done, the thistle will do little injury, comparatively, to the crop.

If your work does crowd, do not plant your corn unless your field is properly fitted for that crop. Better not plant corn at all, than to plant on exhausted, imperfectly prepared land, and after all your labor find your crop a failure. On a majority of our soils, 30 bushels an acre will not pay the cost of cultivation. By adding a little more expense, in manure and preparation, you may get from 60 to 80.

If your soils are heavy clay, do not suffer yourself to be tempted to plow them while wet. In doing this you may inflict an injury to them, which it will require years to remove. In the facility of working at all times, soils inclining to be light have the advantage of all others; but where clay prevails in its character, the plow converts the wet surface of the furrow slice, as well as the bottom of the furrow, to mortar; and till broken up and pulverized by frost or otherwise, such soil is unfit for any crop.

If you sow grass seeds with your spring crops, put them on liberally, and they will succeed better if the roller is passed over them after sowing. Stinting the supply of seeds, is miserable policy.

Dont forget to use plaster on your clover. Applied to newly sown clover, it ensures it against failure in nearly all cases; and on well rooted plants, it adds greatly to their vigor and their quantity. We have used it on peas with great success.

If when planting corn you put a handful of a mixture of two parts of plaster, and one part of ashes in the hill, it will leave a good effect on the crop.

The garden must come in for a share of your attention this month. There is an idea quite prevalent among farmers, but a mistaken one, that work in the garden is thrown away. The vegetable garden is an important part of the farm; the flower garden must be consigned to the wife and the daughters, and they will show their good sense and good taste, in not allowing this to be neglected.

CULTURE OF THE POTATOE.

IT is found by experience, that in addition to the fertility or richness of soil indispensable for the profitable growth of any crop, the potatoe demands for its perfection a considerable degree of moisture and a bed for tubers so light that their growth may be unobstructed. A sandy soil is sufficiently light, but it is most commonly too dry; clay soils are moist enough ordinarily, but they are too heavy and compact. The best soil for potatoes is one that contains a large quantity of vegetable matter combined with the earths. Thus muck lands rarely fail of producing good potatoes, where water is not too abundant. Maine and Nova Scotia are justly celebrated for their potatoes; the newly cleared lands abounding in muck, and the climate insuring a supply of moisture. On a sandy soil, the potatoe should be planted in furrows, so that the roots may be below the general level of the earth, and hilling should be dispensed with; where the soil is inclining to be heavy, or moist, the potatoes should be above the level, and hilling must be resorted to; not those little sharp cones of earth some call potatoe hills, but made as broad on the surface as the distance between the rows and the proper working will admit. There is no necessity for the tubers being buried deep in hoeing or in growing; it is enough if they are fully excluded from light and air. Where potatoes are properly cultivated, the productiveness may generally be well guessed in autumn by the appearance of the hills, which will be evidently enlarged, and cracked in all directions.

We find in our foreign journals some notices of the culture of the potatoe, which our readers may find useful, particularly in clay soils, or those liable to suffer from drouth. Taking advantage of the well known fact that tanner's bark retains water very strongly, Prof. Voelker of Prussia, made some experiments with spent bark, and found that by covering his potatoe sets with two or three inches of this material before turning a furrow over them, he secured an abundant supply of moisture for the season, besides providing a loose, spongy bed for the young tubers. We hope some of our readers who have the means, will try the professor's method, since if it should succeed, a material which now has little value might be made useful to the agriculturist.

In order to obviate the difficulty arising from a dense clay soil, of poor quality, M. Auber of France, strewed liberally his potatoe sets with chaff made from rye straw, previous to their being covered with earth. As the results of experiments made for three years, he states that his crops have been most abundant and of the finest quality. This practice is one that could hardly fail of success in such soils; for if not as retentive of water as the tan bark, the clay soil renders the quality less necessary; and the material would furnish a fine corrective to a compactness fatal to a large potatoe crop.

NEW-YORK STATE AG. SOCIETY.

The regular monthly meeting of the Executive Committee was held at the Society's Room in the State Hall, on the second Wednesday of April—Vice-President LELAND in the chair.

The subject of calling a meeting of breeders for the purpose of discussing and settling, if possible, upon some criteria for deciding upon the merits of neat stock, was called up in pursuance of a resolution passed by the Society at its last annual meeting. After considerable discussion, a committee, consisting of Messrs. F. ROTCH, C. N. BEMENT, E. P. PRENTICE, Geo. VAIL and L. F. ALLEN, was appointed to call a convention of breeders, to be held in the city of Albany at such time in July next as the committee should designate.

A model of a very ingenious Corn-planter, to plant two rows at a time, was exhibited by Mr. PRATT of this city.

Mr. TUCKER reported that the Transactions of the Society would be ready for distribution in a few days, when, on motion it was

Resolved, That the Recording Secretary be authorized to make arrangements for having the copies of the Transactions, belonging to the Society, bound in the same style as the vol. for last year.

On motion of Mr. TUCKER, it was

Resolved, That copies of the Transactions for the past year, be presented to each officer of the Society; to each life member, and to each person who had contributed $5 or more to the funds of the Society during the year 1842, and to each contributor to the vol. Copies were also ordered to be presented to several societies and editors of agricultural papers.

A room having been assigned for the use of the Society in the old State Hall, in connection with the Geological Museum, the Society will be glad to receive donations of scientific and agricultural works, models of implements, specimens of seeds, &c. &c. All parcels for the Society, may be addressed to the Secretary, Luther Tucker, Albany.

COUNTY FAIRS.

The Albany Co. Ag. Society will hold their Fair at the Bull's Head near this city, the first week in October. The list of premiums, rules, &c. will be published in our next paper. TEUNIS VAN VECHTEN, President; LUTHER TUCKER, Albany, Cor. Sec'y.

The Cayuga Co. Ag. Society holds its next Fair at Auburn, Oct. 11, 12. Its list of premiums is extensive, embracing a large number of mechanical productions of special importance to the farmer. J. M. SHERWOOD, President, and W. C. BEARDSLEY, Secretary, Auburn.

The Cortland Co. Ag. Society hold their next Fair at Cortland Village, on the first Wednesday of Oct. next. About sixty of its premiums are to be paid in vols. of Agricultural papers. In addition to the usual business, this Society has appointed about twenty "Experimental Committees," who are to report on the various subjects allotted to them, and should these committees fulfil the duties assigned to them, a large mass of practical information of great value to the farmer, will be obtained. AMOS RICE, Homer, Secretary.

The Ontario Co. Ag. Society have issued their list of premiums to be awarded at their next Fair, which is to be held at Canandaigua, Oct. 17 and 18. The Managers reserve the right to pay a part of the premiums in agricultural publications. Were a considerable portion of the premiums awarded by Ag. Societies to be paid in works of this kind, much more permanent good would be effected than by their payment in cash or medals, as in this way a large amount of useful information would be distributed throughout the counties, which could hardly fail to produce a highly beneficial influence upon our agricultural interests. JOHN GREIG, Esq. Canandaigua, is the President of this Society, and OLIVER PHELPS, of the same place, Secretary.

The Rensselaer Co. Ag. Society have issued an extensive list of premiums to be awarded at Lansinburgh, Sept. 27, 28. Among the premiums are three for the best, 2d, and 3d best farms in each town in the county. At the late annual meeting of this Society, WM. P. VAN RENSSELAER, Esq. of Greenbush, was chosen President, JOHN J. VIELE, Cor. Sec'y, Lansinburgh

CORN AND ROOTS.

We cannot forbear to urge upon our farmers the necessity of paying more attention to the cultivation of the two crops named at the head of this article. The severe lesson which so many of them have received who have relied on the ordinary methods of keeping their stock through our northern winters, should induce them to be on their guard against the recurrence of such calamities. Our domestic animals constitute a very large portion of the wealth of the country, and its loss should not be needlessly hazarded. The most distressing accounts of the loss of cattle, sheep, and swine, in the southern counties of the state, and in the states of Ohio and Michigan, continue to reach us, and it is evident the loss already suffered by farmers is immense. When the hay and straw failed, there was no resource; an acre of roots, or a few acres of corn, would in nearly every instance have averted the loss of stock, and in no event could the articles have been useless to the farmer.

Corn is one of the most valuable crops that can be cultivated by the farmer, and one that rarely fails if the ground is properly prepared, and a good selection of seed be made. In many districts of the north, early varieties must be chosen, or there may be a failure of its ripening; but where this is attended to, the crop rarely fails. The man who plants corn, must manure well and heavily, but he loses nothing by this, as corn is one of the best preparatory crops for those kinds of grain to which the application of fresh manures is injurious. We give to our readers two methods of the cultivation of this crop, the first practiced by D. Comstock of Raisin, Michigan, as described in the N. G. Farmer; and the second by Mr. Sweet of Tyringham, Mass., from the "Traveller."

"Mr. Comstock's soil is sandy, and he selects a clover ley, mowed the preceding years. On this he spreads 25 loads of barn yard manure to the acre. From the 10th to the 15th of May, it is turned under by furrow, about 9 inches deep; then about 25 loads of old ashes, scrapings of the hen house, chip manure, &c. are added; after which it is well harrowed lengthwise of the furrows, marked out, and planted with the large dent and redblaze varieties of corn, in hills two feet apart, and rows three and a half feet apart, with from four to seven kernels in a hill, so as to secure three good stalks in each hill after weeding. When it comes up, a handful of leached ashes is put on each hill to check worms and grubs. The cultivator is passed through it three times, and it is hoed twice. Last year his corn so treated, yielded a little over 100 bushels of shelled corn per acre. Mr. C. also raised in the same field, two acres of sugar beet, which gave 1050 bushels to the acre."

We venture to affirm that Mr. Comstock's cattle have not this winter perished from starvation.

Mr. Sweet's method is as follows:—"He spreads what manure he intends for the field on the surface of the green sward; then he plows the land into ridges about three feet apart in the fall—each ridge or row being made of two back furrows turned upon a narrow strip of sward, which is not disturbed. In the spring, he rolls and harrows these ridges, and on the top of each ridge, 12 or 14 inches apart, he plants his hills of corn, three or four kernels in each hill, and cultivates his corn through the season with the hoe, cultivator, and plow, as much as he deems necessary. In this method, he remarked, he was not troubled with weeds or drouth. In the fall, as soon as the corn is ripe, he gathers the ears, then pulls up the cornstalks, and lays them down lengthwise between the furrows, and then splits the ridges with his plow, and covers these stalks completely up. This is made his ridge for his second crop of corn, to be planted the succeeding spring. He has raised 110 bushels of corn per acre, planted over these buried stalks."

These buried stalks may aid in producing a good crop of corn, but the practice is unquestionably a bad one, as the cornstalks if cut and fed to animals, would go far in wintering stock, and the manure so made, would doubtless be as effective as the buried stalks would be. Every farmer may not reach 100 bushels per acre, but from 60 to 80 may safely be calculated upon; and every farmer can estimate for himself, the value of the grain and the fodder so produced, for the feeding of animals. Corn, for feeding stock, should always be ground, corn and cob together; in this way its value is greatly increased, and this meal mixed with cut straw or hay, is one of the best kinds of food an animal can receive.

Roots too, have not received from the great mass of our farmers, particularly those whose main dependence is on stock, that attention they deserve. Had every farmer relied less on his hay, and grown only an acre of roots, millions of dollars now lost to the country would have been saved, and an incalculable amount of suffering prevented. It may seem absurd to some, to talk of suffering, as applied to animals, but we consider that man as guilty of crime, who needlessly exposes his animals to privation and pain. A man has no more right to starve his stock, than he has to starve his children; his animals were not given him for such a purpose; and the attempt to keep more than can be kept well, deserves the severest reprehension.

Of roots, valuable for animals, and which may be grown to advantage, we may name potatoes, Swedish turneps or ruta baga, carrots, and the sugar beet. The root crop most certain is the potatoe; but it rarely equals in the quantity of bushels produced per acre, any of the others; and as there does not appear to be any material difference in their value when fed raw, (the carrot excepted, which is the best,) some of the other should in ordinary cases receive attention from the farmer. The average of the potatoe crop will range from 150 to 200 bushels when well cultivated; and the average of the turnep, carrot or beet, under the same circumstances, will range from 400 to 600 bushels per acre. The potatoe crop occasionally rises to 400 or more bushels, but not oftener, perhaps, than the others to 1000 bushels per acre. A large proportion of our meadow lands do not yield more than two tons per acre, and it will require at least this amount to keep a horse or ox for five months, fed exclusively on hay. Now experience proves, that from one to three pecks of roots, according to the age and size of the animal, will keep them well and thriving, a handful of dry hay or cut straw being daily added; hence it is certain than an acre of land in roots will keep four or five times as many animals as one in meadow. Most farmers will admit this; but say they cannot cultivate roots, as it requires so much more labor than to make hay. Very well; but then they should keep no more animals than their hay will keep well, and have plenty of food at all times. But we have usually found that those who are the least familiar with the cultivation of roots, are the most loud in their complaints as to the labor; and as in most other cases, experience will be found to greatly facilitate the production, as well as lessen the labor demanded.

ROADS.

There are few matters of equal importance to the farmer, that receive so little attention from him as the subject of roads. He is taxed a certain sum to be expended on the highways, or he is assessed a certain number of day's works to be performed in making or repairing the roads, and when this sum is paid, or this tax worked out, he seems to think all is done that is necessary, or that he can do, to remedy existing evils and secure good roads. This is not the case: there is no one so much interested in good roads as the farmer, and there is no one who should better understand the subject than he. Old methods should be discarded if better ones can be found, and a little calculation will be found as effectual as all work without forethought or proper direction. There are many of our roads that are most unskillfully and wretchedly laid out. This is particularly the case where the roads were made when the countries were new, and the character of the country or the soil, could not be understood. The proper location and construction of a road, not unfrequently lessens the draft between two points, 100 per cent; and we may well believe that were our beasts of burden consulted in the matter, they would prefer a road with some slight deflections from a right line, or which was lengthened in a slight degree, to one carried directly across hill and valley, without the least reference to inclination or slopes, but only to straight lines.

Nine-tenths of the farmers in the country, reside at distances of from 10 to 20 miles from their market places; and the marketing a load of grain, or other products, will in most cases consume a day. Now if by improvement of the roads, the farmer is able to transport 40 bushels of wheat, where before he could carry but 20, or other products of the farm in proportion, it is easy to see what a saving of time and labor will be effected. There are few farms of 100 acres, which will not furnish from 40 to 50 loads of marketable matters in the course of the year, and a saving of one-third the time required for this purpose, which will be made where the roads are good, will constitute no small item of improvement or profit in the farm. If to this is added the wear and tear of wagons, harnesses, and horses, the difference to be shown between good and bad roads, will not be less than one-half the expense of transportation.

In the construction of roads, two methods have been generally adopted in the country. The first is what is called the turnpiking system, in which, in most cases, the surface earth is drawn from the sides into the middle of the road, rounded off, and left for the carriage road. If, as country roads are generally made, this rounded part is only wide enough for one track, ruts will soon be made in this surface mold, water will penetrate, and the road in the spring and fall, muddy and intolerable. The other method is to plow ditches by the sides to keep off surface water, and then have the central part of the road with a surface level, or but slightly inclined to the sides. This gives a better road track than the other, less liable to form into deep ruts, and preferable in other respects, but unless the soil and the materials of the road are good, this method will be found faulty and objectionable.

To make a good road, it is necessary in the first place that it should be dry. In some places the soil will be naturally so porous that no surface or standing water can be found. Where this is the case, road making is easy; it requires nothing more than to grade or level the track, clearing away the surface earth or vegetable mold, and giving a proper inclination to the pathway. But in most soils, if no more than this is done, the roads will be for a considerable part of the year muddy, rough and uneven, and unfit for the transportation of loads. The making the bed for the road dry, is the first thing to be done on such soils. Drains to remove springs; ditches to allow the surplus water to flow off readily, and the placing the driest soil for the track, will be required. It is idle to think of a passable road in such a country of rains and frosts as ours, unless freedom from water is first secured.

In the second place, the form of the road should be such as will give the smoothest surface. Where a road is so narrow as to force all the travel upon a single track, it is scarcely possible the track should remain smooth for any length of time; it is consequently better to have the crown of the road wider, and the level part suitable for wheels more extensive. In this way, neither horses nor carriages will be confined to a single part of the road, and a greater width will be leveled and smoothed. Whatever may be the nature of the road, a long scraper should, whenever the road is dry, and the effects of previous wet weather appear in the form of ruts, be drawn over the road to fill the depressions and remove all obstructions. This scraper is one of the most useful implements and labor saving machines, that has yet been invented, and no road district in the state should be without one.

In the third place, having secured a dry bed for the road, and leveled the surface, the cheapest mode of preserving it in fine condition for transportation, is to give it a coat of gravel some eight or ten inches in thickness. We venture to say that one-half the work laid out on the roads in most of our towns, would go farther towards making good roads if expended in placing gravel on them, than is now done by the whole. Graveling in some places, may be impracticable from the difficulty of procuring suitable materials, but such districts are rare, as observation will prove. It is a practice in most districts, to call out the work in the early part of summer, and expend all the labor at that time. In many districts it would be more to the profit of those who use the roads, if a part of this labor was reserved, and expended during the winter in transporting gravel to those points where the condition of the roads most require its presence, but to which distance may render it inconvenient to draw it in the summer. The work assessed in a road district should always be expended at the time, and in the manner, which will insure the most benefit to the roads. As the farmers, more than any other class, are interested in having good roads, they should direct their attention to their formation and preservation, and endeavor to understand and practice the principles necessary to this end. In the choice of implements and methods, old prejudices may be encountered, but a good road appeals so directly to some of the most influential principles of our natures, that when a part of a road is made good, there is little objection, usually, to a similar treatment of the remainder. Select then a good location for the road; provide by drains or ditches for freedom from all water in the road track; cover with clean gravel to the depth of ten or twelve inches, and there will be a promise of a road over which transportation will be easy, and which will need little annual repair.

DAIRYING ON THE WESTERN RESERVE.

The following account of the products of a dairy of twenty-five cows, is from a letter of Geo. Heslip, Esq. of Gustavus, Trumbull co., Ohio, to the editors of the Cultivator. He may well ask—"Can this be beat?" We do not recollect an instance, where the product from even a small number of cows, has averaged any thing like this. Few dairies produce over one-half as much, and 400 lbs. is consitlered a large product in the best districts of this state and New-England. Mr. Heslip says:

"As the Western Reserve is becoming somewhat noted for its cheese, being settled for the most part with New-England people, and as we say, 'Yorkers,' most of whom are engaged in the dairy business, I give you below the product in 1842, from twenty-five cows, owned and managed by Ephraim C. Selby, Esq. of this town, as follows:

13,715 lbs. Cheese, which is over 548 lbs. to a cow.
309 " Butter.
3,210 " Pork, from nine hogs.

This is exclusive of milk, butter and cheese, used by the family, of which no memorandum was kept. He raised four calves; dried off (to fat,) three cows, Sept. 1st, and ceased milking Nov. 1st. His cows are all of native breed, and received no other feed than good field pasture. Can this be beat?"

CUTTING MILDEWED WHEAT EARLY.

We make the following extract from a communication in the N. E. Farmer, from Q. C. Rich of Shoreham, Vt. The result is in perfect accordance with numerous instances which have been made known to us the past year, and which has placed the propriety of cutting mildewed or rusted wheat when first attacked, beyond a doubt. In this case, the theory founded on the chemical or natural action of the juices of the plant, agrees with practice; and the diseased action of the vessels, and the further deterioration of the sap, is promptly checked by cutting the grain.

"In the fall of '41, I sowed 1¾ bushels of wheat on 143 rods. During the early part of the spring it was backward and thin; but it improved rapidly after the spring rains. When heading out, it looked finely, promising a large crop; but the rust struck it, as it did the wheat generally throughout the country. My neighbors, many of them, advised me to let it stand till it was riper, as the heads and most of the straw, were quite green. To satisfy myself as to what others had said, I turned to the remarks of those who had communicated their practice through the Albany Cultivator, and found they were all in favor of cutting forthwith after its appearance. I followed their advice, and cut all, excepting what would make a single bundle; this I left, to see if there would be any difference in the grain. After this had stood till the straw was ripe, I rubbed a little of it out, and it was so badly shrunk, that taking this as a sample, I would have let any person have all the piece produced, for five bushels; and yet the yield was 21 bushels. Had I let it stand one week longer, I presume there would not have been five."

Original Papers from Contributors.

AGRICULTURAL PREMIUMS.

THE New-York State Agricultural Society and the County Societies, have hitherto offered most of their premiums on Domestic Animals and Farm Implements. Generally from two-thirds to three-quarters of the whole amount offered, have been for these two objects. It cannot be denied however, that there are other departments of agriculture which are equally deserving attention. Greater advances have been made in the improvement of our breeds of animals, and in the construction of implements and machines, than in the general management and cultivation of land; and it has doubtless been the best policy to bring out to our Fairs what we already possess, in order to increase their attractions, and encourage general interest among farmers in the support of agricultural societies. At all events, I should be sorry to be even the last to find fault with what has been already done; but this will not prevent suggestions for future use.

It must be obvious that the great and permanent utility of these societies, depends not only on perfecting what we already possess, but in directing attention and inquiry into new channels, and towards new objects, especially if those objects are of the highest practical importance. While therefore a proper number of premiums such as have been already offered, are continued, it is proposed to offer another class for the best *experiments on cultivation*, independently of those for the largest crops. The following may be mentioned as instances:

1. Experiments on *manures*—the relative value of stable dung, muck, dead animal matter, night soil, lime, ashes, &c. when properly managed and applied; to be tested by their effects on different crops, and on various soils, as circumstances may permit. The best mode of applying ashes, leached and unleached; the quantity, time, mode of applying; the soils and crops most benefited. The same with lime and marl.

2. Experiments on the *quantity* of manure manufactured in comparison with the means—the quality to be tested by experiment. Many parts of our country abound in vast beds of peat and marl, and only need to be manufactured into manure to be worth millions. Premiums should be given to stimulate effort in this direction.

3. The best series of experiments on different modes of cultivating *corn*—as in hills, drills, double drills, &c. and for fodder; and the comparative cost of each; quantity of seed, different varieties and distances; kinds of manure, modes of applying, &c.

4. *Wheat*—experiments on different varieties—quantity and quality of manure for various soils—effects of lime, charcoal—early and late cutting—time of sowing, quantity of seed, &c.

Similar experiments might be instituted on potatoes, turneps, beets, carrots, barley, oats, peas, beans and other crops. Every thing in relation to these experiments should be submitted to the test of accurate weighing and measurement; and where practicable, analyses of the soils should be obtained.

Experiments might also be directed to the different modes of feeding and fattening animals, the quantity and quality of food, times of feeding, and the effects of shelter on the flesh, and food consumed—to be tested by weekly weighing. One premium or class of premiums might be given on swine, one on sheep, one on horses, one on cattle, &c.

Thousands of dollars have been paid out in premiums on improved breeds of animals, especially on Durham cattle and Berkshire swine; but not one that I am aware of, on experiments to test the superiority of those animals in feeding, fattening, and products, for the amount of food consumed. Conjecture is unsatisfactory to most, and hence they adhere to their old and inferior breeds. The amount of milk and butter yielded by Durham and other cows, from a given quantity of food, is especially needed, and it is hoped that liberal premiums may be given for this purpose.

Convenient machines for weighing, and facilities for measuring, would of course be of the first importance.

Such proof of the correctness of the reports of these experiments may be required, as is thought expedient.

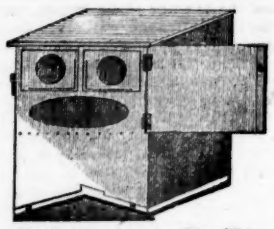
If agricultural societies should adopt this course, and offer premiums large enough to enlist intelligent cultivators throughout the state, the reports for these premiums alone, would make a most interesting volume of transactions.

J. J. THOMAS.

THE PERFECT BEE HIVE.—(Fig. 37.)

MESSRS. GAYLORD & TUCKER—Before giving a description of the above hive, (which I denominate the Perfect Hive,) I wish simply to say, that a hive to be useful, should be cheap and easy of construction, simple in its management, avoiding all complexity. The form of this hive is with right angles, similar to the old fashioned box hive, and divided into compartments, an upper and lower, of unequal dimensions. The lower is the hive proper, in which the bees rear their young, and where the winter store of honey, bee bread, &c. is deposited. The upper receives a set of drawers for storing the surplus honey.

The inquiry of bee cultivators has been, and is, how shall we protect bees from the night moth and worm. *Care* and *attention* will always be requisite, but I have full confidence that we may afford ample protection by using hives, in the construction of which all seams, joints, or cracks, which offer a secure retreat to the moth are dispensed with; for it is well known to every apiarian who has attended to the subject, that the moth deposits its eggs in those seams and those only which will give security to the young grubs. She never leaves them in such openings of the hive as are sufficiently large to admit the passage of the bees. But if bee keepers (without reflection,) will locate their swarms in any and every thing in the shape of a hive, (and none the better for being patented,) they may expect a continuance of the evil. For the purpose of discharging from the hive all filth, dead bees, &c., the form of the bottom is a double plane, and *under*, not *in* the hive; the body is elevated about one-third of an inch above it, by means of hinges of a new construction; the bees find free egress and ingress around the base of the hive; the air has a free circulation, preserving their health, and the moth finding no place congenial to her wishes, seeks other places than the hive in which to lay her eggs, and thus worms being excluded, the swarm prospers.



Booth's Bee Hive.—(Fig. 37.)

A serious objection to all hives which have come under my observation, has been want of ventilation in the chamber. Bees, as well as their owner, require pure air: and none need be told that air ascending into drawers from the interior of the hive, in consequence of its being rarified, and there remaining impure for want of ventilation, is ill adapted to induce bees to work or even to remain in such drawers. I think this may be one great cause of bees failing to store honey to any considerable amount in the drawers of modern constructed hives. In the above hive, not only the body, but the drawers receive free ventilation, and in storing honey the labor and travel of the bees is greatly lessened, by their being admitted by the ventilators directly into the drawers. The hive has been in use in many apiaries in Massachusetts, the past season, with entire satisfaction. It thus far promises to be a complete protection from the moth and worm.

EDWIN BOOTH.

Springfield, Mass. March 29, 1843.

FARMER'S CLUBS.

MESSRS. GAYLORD & TUCKER—There is no one thing of more importance to agricultural improvement than a concentration of facts, which are constantly developed by practical farmers, and thence a wide dissemination thereof.

There is no farmer who cannot learn something from his neighbors, and who cannot in turn communicate valuable information; yet men spend their lives near each other, and perhaps never converse upon the various subjects of their profession. Neighborhood or town meetings held by farmers at stated periods, wherein are discussed the various subjects relating to farming, would be of the highest importance to every farmer, not only in the town, but throughout the country, inasmuch as their discussions would bring out the result of each man's experience, and thus a mass of facts would be collected for the benefit of the whole community. The substance of each man's discourse should be published in some county paper or in some one of the agricultural papers.

A Club has lately been formed in this town, the first I believe in the state. I send you our rules, and some of the proceedings of the first meeting, and I hope others will follow our example until there is not a town in the state which has not its Farmer's Club.

T. C. PETERS.

DARIEN FARMER'S CLUB.—RULES.

This Club is formed for mutual improvement in Agriculture, and is auxiliary to the Genesee County Agricultural Society.

The officers of the Society shall consist of a President, Recording and Reporting Secretary. The President may be elected at each meeting; the Secretaries as often as a vacancy occurs.

It shall be the duty of the President to preside over the deliberations of the Club. It shall be the duty of the Recording Secretary, to keep a record of the proceedings of the Club in a book to be provided for that purpose, and to assist the Reporting Secretary in his duties. It shall be the duty of the Reporting Secretary to report the substance of the statements of members upon the subject under discussion, and prepare them for publication.

It shall be the duty of each member to confine his remarks strictly to the subject under consideration, so that the reporters may not be confused; and, whenever called upon by the President, to write out the substance of his remarks, and deposit the paper with the Secretary.

The subject of discussion shall be named at the last meeting for the next.

The President may call upon any member to commence the discussion, and the last speaker may name the next, or in default, any person may volunteer, or the President call upon another member.

Any person may become a member by signing the Club roll.

At a meeting of Farmers held in the School House in the village of Darien, March 11, 1843, Mr. T. C. PETERS in the chair, the foregoing rules were read and unanimously adopted.

The chairman then announced that the "Cultivation of Potatoes," was the subject which had been fixed upon for this evening's discussion.

Mr. E. LOSEE—Potatoes have not been a leading crop with me. I consider them profitable, especially when well manured. I have not been in the habit of manuring much. My soil is a gravely slaty loam. I have raised the best when planted at the bottom of the furrow. Have grown them upon heavy soil. On such soils should advise shallow planting. Think I can raise as good upon light soil as upon heavy.

Mr. J. W. HYDE—The plan I have followed for the last three years, and prefer to all others for raising potatoes, is to take a piece of sward which has not been fed, and when the grass is well up, say about the 1st of June; upon this I put my long manure in such quantity as to fill every fourth furrow. The fourth furrow is filled with the manure, and the potatoes dropped about eight inches apart; the furrow slice is then turned over. The after cultivation is merely to keep the ground clean, and thinks that the crop is best without plow or cultivator, provided the grass and weeds are kept down. Prefers large potatoes for seed; plants eyes on account of economy of seed. Harvests with plow and harrow. Usual crop about 400 bushels per acre. Soil, gravely slaty loam; subsoil same; is a dry land. Prefers the Irish grey to any other kind. Has never applied leached ashes, but has no doubt as to the advantage, as he noticed one year where a quantity of chip dung, into which the leaches of the house had been thrown, and which had been spread upon the potatoe ground, the potatoes were larger and fairer than on either side. Is satisfied that one cause of small potatoes, is too much seed in the hill. His father, a few years since, in planting a piece, cut off the seed end, threw it to the hogs; the crop was very uniform in size, and a good yield.

Mr. D. CARTER—Prefers sward plowed in the fall. In the spring he gets out his long manure, plows it in, and harrows. Deep plowing essential, furrows cut very shallow, plants in hills three feet apart each way, about 1st June for late; as early as possible for table. Plows and hoes; generally plows each way; makes rather a broad flat hill. Crop varies from 400 to 500 bushels per acre. For stock, prefers the Irish grey; for the the table, the Mashonic. Has a very valuable spring or summer potatoe. Has raised the Merinos, but thinks from his experience in feeding hogs, that one bushel of Irish greys are worth at least one and a half of Merinos. Has tried leached ashes some, and considers them very beneficial. Selects the largest for seed.

After some further discussion, it was resolved that the same subject be continued at the next meeting, and the Club adjourned to the 18th inst.

LEAF HAY—CORN AND CLOVER—COAL.

EDITORS OF THE CULTIVATOR—In answer to your inquiry as to the result of my use of leaf hay as fodder, I would state, that in the latter part of the winter of 1841-2, I fed the leaf hay mentioned, to both cows and horses, and the result was not as flattering as I anticipated; for the horses partook of them sparingly, and the cows more so. The leaves were of the different kinds of oak, which are not relished by brutes when green. If they had been of hickory or chestnut, I doubt not they would have been eaten freely. In a heavy forest, with a light rake, leaves can be collected expeditiously; but perhaps not more than one fall in three is suitable for securing leaves in hay condition. The four tons of leaves mentioned, made me a nice quantity of manure; perhaps in value equal to twice this quantity of ordinary leaves.

If I dare advise P. F. Wislar, Esq. I would say that he should abandon his intention of sowing corn and clover together, for undoubtedly the corn will smother the clover. Or if he shall sow the corn so thin as to obviate this objection, then the weeds will destroy the clover.

Please accept my thanks, gentlemen, for your admonition touching my last communication; nevertheless, I must insist that where one object in the use of coal is to create porosity, it should not be made fine.

Instead of burning only 1,500 bushels of coal, I have, during the winter, burnt at least 4,000, which, together with the burnt covering of earth, ashes and soot, make about 9,000 bushels of manure, which I have principally used in the compound on clay grounds, at the rate of about 600 bushels the acre. I have thought it most advisable to spread the most of my coal of this year, directly on the land, that I may see its direct effect. I shall try it on corn, wheat, cabbage, meadow and grazing lands, and report the result. If the result should justify the outlay, I intend next winter to burn about 20,000 bushels—that is of coal, earth and all, which will suffice for 35 or 40 acres. As to the time, I never miss it, and the wood is a cumbrance. It seems that coal is the stuff for clay, and ashes for sandy grounds. Now, although I have the clay and sand and wood for both coal and ashes, yet being a tobacco grower, I cannot work very well at those matters. I keep one ox cart about five months in the year, moving manure, yet shall not be able to get out all my manure this year. About 3 months of this time is winter, when only about one-third work can be done.

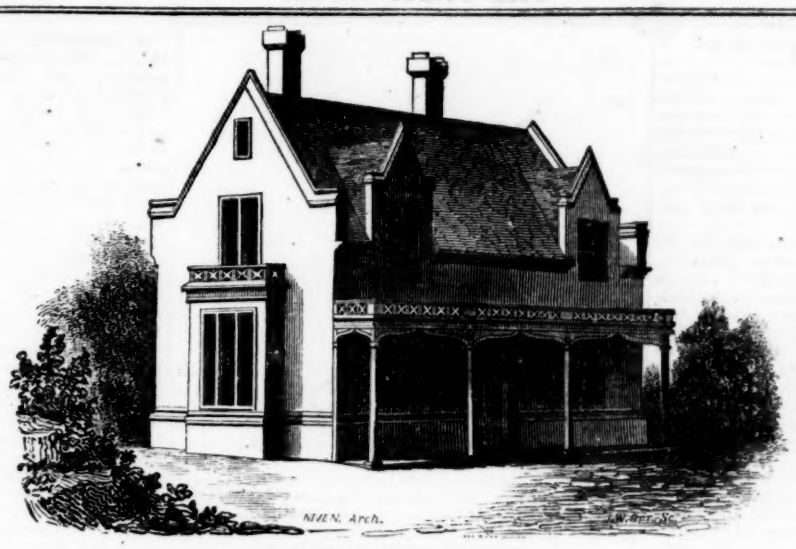
But I see I am flying off the helve: so close, by stating that about 10 o'clock this morning, it began to snow from eastward; about 12, the snow came from the west, and it is now, at 6 o'clock, cold and snowing and blowing rapidly, and likely to be the deepest fall we have had this winter.

ZA. DRUMMOND.

Amherst co, Va., March 16, 1843.

A FARM HOUSE.

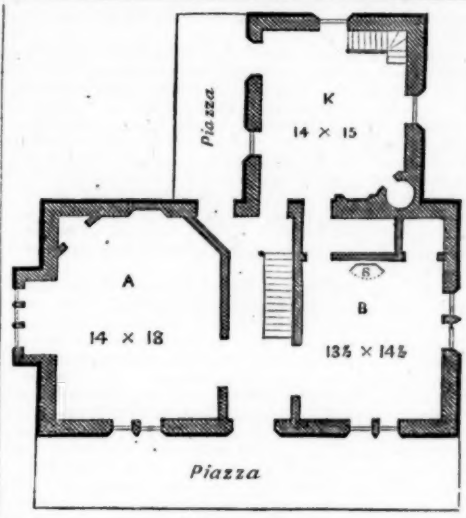
MESSRS. EDITORS—With this I send you a design for a farm house, or cottage, in what is known as the Tudor style of architecture, with some modifications indeed, which I think are required to adapt it to our climate. The Tudor style is essentially English, and in its severest features is no doubt well adapted to that climate; but instead of the porch, which is always found in connexion with a building of this description in England, I have attempted to Americanize it by throwing a veranda or piazza in front, as well as one in the rear; although I have endeavored to give them an appearance which should harmonize with the whole. How far I have succeeded, your readers must judge. The style itself, if in a favorable situation, is extremely picturesque and beautiful, calculated to convey to the mind the idea of snugness and comfort.



A FARM HOUSE.—(Fig. 38.)

This plan is of a building of humble pretensions. It furnishes (see fig. 39,) a parlor, (A.) a dining room or sitting room, (B.) and a kitchen, (K.) on the main floor, and four sleeping apartments each about 9 by 10 feet, on the chamber floor, besides 2 servant's sleeping apartments over the kitchen, each about 7½ feet by 14 feet, with a cellar under the whole. The sitting room I would heat by a stove, (S.) carrying the pipe to a drum (as it is called,) in the rear chamber above, and thence into the chimney, by which means one sleeping apartment is warm from the heat below. The cost of this building, of brick, stuccoed in imitation of stone, or laid up plain, would be about $1,600, if in a favorable location for getting the materials. A house of this style should never be built of wood.

Newburgh, March 10, 1843. T. M. NIVEN, *Architect.*



Ground Plan.—(Fig. 39.)

LATE PLOWING.

MESSRS. GAYLORD & TUCKER—Having on former occasions given my successful experiments with clover, tobacco, and wheat, in the three field plan, and having since failed, it may be but justice, and therefore proper, that I sould tell my brother farmers how I have failed in cropping. My course has been to haul out all the manure I had upon the lot which had been in clover two years, once and sometimes twice plastered, half bushel to the acre. I have always put off plowing as long as I could venture, late in April, that I might benefit the lot itself with additional green manures, and spare my young clover by grazing this. The consequence has been, in grasping after so much, I failed to get my ground in proper order, and the sequel is, I have raised but two good crops out of six. So I have clearly learned that the chance of success of late plowing, is as two to six. My thoughts now are turned upon the importance of early plowing and a thorough preparation of turf land for corn or tobacco, especially when well covered with old clover. I have been, this, the third week in January, the thermometer ranging from 50° to 65°, plowing a few lands of clover lay, to compare the effect of January, March and April plowing. In weather not oppressive, I love to direct a good plow, and walk behind a span of well broken and well fed horses; it is no mean occupation; in my humble estimation, it is pleasant and healthy, the exercise promoting digestion and circulation, giving the mind ample scope for its full and free operations, yet how ignoble is the employment viewed by many whose effeminate vocations it throws in the shade. While being engaged on this occasion, my faith was exercised as my meditations ran thus:—I shall lose the use of the lot to graze, as well as a little green clover to turn under; but I shall put under a vast quantity of unrotted rubbage, turn up and expose not a few of the hatching eggs, and I do hope among them the eggs of the cut worm, our greatest enemy to corn and tobacco, and should the pulverising effect of the frost be found advantageous, I shall be convinced the least risk is in too soon rather than too late plowing. Respectfully yours, D. G. WEEMS.

Tracey's Landing, Anne Arundel co. Md., 1843.

NOTE.—Commentator, who in his reviews, (and in many instances witty and judicious criticisms,) has guessed me to be a doctor, from some medical quotations in their peculiar technical terms, and rather unintelligible withal. Mr. C. may be desirous of knowing with what precision he made his guessing shot. I will say to him, I bleed; and if a cart and four being driven to my door with a patient for venesection, be a proof of skill, he will admit I should know at least a vein from an artery: and when I inform him I was this morning consulted upon a case of impeded labor, he may be satisfied he is a good southern guesser; but not so, sir: I have no diploma, neither Thompsonian steamer, and therefore not entitled to his appellation of M. D. to the end of my name, and hence not a part of my signature, as that of our cotton correspondent of Alabama. I acknowledge my quotations savored a pretence to reading, but it was English, and I thought it was in place. I agree with Commentator, that farmers generally are "not high larnt," but to this general rule, there is one exception at least, and that must be the reviewer of words of the old domains, whose "half century's experience" I revere and venerate. I have a little book, and have read in substance as follows, about the beam and the mote in the eye of the preacher, whose fears were, while teaching and instructing others in the right road, he might be lost himself; and again, where he who speaks in an unknown tongue talks foolishness unless it be interpreted. Quere, father Commentator, wherefore and wherefrom those strange sounds for the "unlarnt farmer," "Credat judæus," "Occupet extremum scabies," "Ipse dixit?" Did they ooze unobserved from your finger ends, and are they the names of some new grasses, grains, implements, or animals? "Esprit du corps," exotic, I guess monsieur, imported from Paris. Pentagonal, hexagonal, I find is really English. I would ask the reader, does not this Latin, French, and redundant English, savor a touch of the sublime, a tincture of pedantry, and a little of the verbosity. I would now repeat to father Commentator, his own advice somewhat, that in his future reviews for the Cultivator, when he cannot possibly refrain from using such outlandish expressions, he will for the edification of the farmers who are "not high larnt," accompany all such dead phrases with a translation or a duplication, as he did in the two English words. D. G. W.

WESTERN FARMING.

To my friend of Richmond Co. N. Y.—Your letter in the March No. of the Cultivator, has been near three weeks on hand. I would have made more haste to answer it, but since it was written, you must have seen my article in the February No., in which I have anticipated some of your inquiries. And I hope you have also seen the American Agriculturist, published in New-York city, in which you will find some more information upon the subject of farming in the west.

I am now writing upon the 21st of March; a clear sunny day, and the thermometer in the shade, 25° below the freezing point; the latitude 41° 30′. [By the by, there is an error of 9° in the statement of your latitude.*] The ground covered with snow, and I should now be gliding over it after a load of pine timber near the beach of the lake, only that I was taken slightly unwell after I had got my horses harnessed for a start—to that you owe my present occupation. This is a very unusual hard winter, and the people are learning a lesson of dear bought experience. For notwithstanding the fact that hay of a most excellent quality, equal to timothy, may be made in any desired quantity, as fast as a man can cut it upon smooth clean ground, at the rate of two or three tons to the acre, they did not provide enough for this very severe winter, and the cattle are actually starving to death at this time. Even the ashes of ten thousand tons of burnt straw won't save them; neither will the cornstalks that have been safely preserved for spring feed, any more than keep them alive.

"What, do you say that cornstalks are not good rich feed?"

"Oh no! I said no such thing. I said they had been carefully preserved, and would have told you where, but you interrupted me."

"Pray then, tell us how you preserve cornstalks in the west."

"Yes, I will—that is, how thousands of acres are preserved—by letting the corn stand just where it grew. And such fields as are not gathered by the hogs in the process of fatting, are gathered as wanted through the winter, and thus are the stalks *preserved* for the cattle in the spring. 'Rich feed,' ain't it?"

And now if I tell you how corn is planted sometimes, your skeptical neighbor can reduce his figures.

And firstly, of the first crop on the prairie. The sod is very tough, and is generally broken from 3 to 6 inches deep, and 16 to 24 wide, turned over flat by a plow drawn by 4 or 5 yoke of oxen, 1½ to 2 acres a day. In every second or third furrow the corn is dropped near the shoulder, and the next slice turned over upon it. This produces a middling crop with no after culture whatever. Again, in old land, the ground being furrowed out for the rows sometimes one and sometimes both ways, the seed dropped in the furrow is covered by passing along another light plow, and as soon as planting is done, then commences the after culture, or rather, I should say, the plowing of the ground, and which culture is almost entirely completed with the plow. No manuring, no hoeing, or but very slight, no harvesting in many cases, that being attended to by the hogs, no saving of stalks for fodder, and as the land is as mellow as your garden, and as free from all obstruction to the plow, is it to be wondered at even by your unbelieving neighbor, that corn can be raised by the hundred of acres, upon such a system, upon such land, without "a regiment of men and boys."

And in regard to wheat, it does not require a regiment of men or teams, to put in 800 acres of wheat, upon land as mellow as an ash heap, where the plowed lands are a mile or more long without turning; and as the seed time runs through a space of near two months, so the harvest runs about half that length of time; and as to when it is housed, I would answer that during the last fall, thousands of acres of wheat were thrashed by a kind of machine that is fitted upon wheels and drawn about the field by 4 or 6 horses, tended by three men, one of whom takes the sheaves from the ground or the shooks, and pitches them up to the feeder while passing along, and the straw and a great portion of the chaff is blown upon the ground, while the clean wheat is deposited in a reservoir, which when full, is expeditiously emptied upon a sheet of canvass, and from thence is taken by a wagon to the barn; so that the barns instead of having to hold the sheaves, are only required to store the grain. And thousands in this new country, who farm on a large scale, have not even a barn for that purpose, but depend upon a rail pen with the cracks corked with straw, or some other equally primitive mode of storage.

And those who do not thresh their wheat immediately after cutting, stack it in the field or some convenient spot for threshing, where, if it is well put up, it will keep far better than in any barn. And the way the straw is disposed of, I have hinted at in the first part of this letter; and many contend that it is the best way, as it is not wanted for manure, and cannot be consumed by cattle in ordinary seasons, and certainly not as quick as by fire.

That this is the best system of farming, or that all these things are universally practiced in the west, I shall not assert, but that they are to a great extent is true.

It would seem to you wonderful to see so much good soil lying waste—and wicked to see so much good soil wickedly cultivated—extravagant to see so much grain grown for no other apparent purpose but for the pleasure of seeing it grow, without deriving any profit from the growth.

The question is sometimes asked, if land is so cheap and good and easy to cultivate, why don't the western farmers all get rich?

I have already answered this, but I will repeat; it is

* This was a typographical error. It should have read "Lat. 40°, 30′, N."—EDS.

in consequence of the extreme fertility of the soil. I am not going to undertake to tell why it is so, but so it is, that when the whole land is so cheap, so easily cultivated, and so productive with so little labor, mankind will grow indolent, and do not accumulate wealth as fast as you do who have to dig and delve among the "rocks and stones, bushes and briars, and stumps," and then manure your land at an expense for one year, that equals the value of the rent of an acre of land here, equally fertile as yours after receiving the manure, for more than seventeen years.

And although we can raise corn and oats here for six cents a bushel, better than you can at 56 cents, we cannot compete with you on account of transportation. But in articles of more value, we do, and might to a much greater extent, if we cultivated our soil as you do yours. It is an incontrovertible fact, that you "expend more labor with less profit," than we do. And I believe it is an equal fact, that you make more profit out of your labor; for you are compelled to be more industrious. But again, you are compelled to spend a greater amount of your profits to provide for your artificial wants, in the artificial state of society in which you live. For my own part, I am willing to plead guilty to a love of indolence, and for that and some other reasons, I love this country. But I don't want any more to come here solely because they are indolent; there is enough of us of that kind now. But if you, or any of your neighbors, who till your little farms, and till them well, would like to till more and till better, but cannot where you are, I pray you come here.

But one thing I beg of you: notwithstanding I would like to see you practice a little different from what I have described, try to forget before you come here, that you ever spent 18 days works, besides the two teams, planting seven acres of corn, or in the whole work of raising the crop, 87½ days; lest you should happen to mention it, as it would certainly injure your character as a man of truth.

Let me see how it would answer here to spend 87½ days upon 7 acres of corn.

Wages, 50 cents a day, or about an average of $10 per month, or including board, I suppose 50 cents a day is a fair price, so that 87½ day's work at 50 cents a day, is..... $43 75

The crop of 7 acres of corn, at a fair average, 50 bushels to the acre, 350 bushels, at 12½ cents a bushel,..... $43 75

A nicely balanced account, saying nothing about the team work and husking.

And again, "seventeen dollars an acre for manuring." Don't tell that to us, while moving our barn to a "clean spot," to get away from the yard where we lost the old red cow, mired in the dung.

Let me see what would $17 do here. Why, as I said before, it would pay the rent on 17 acres of land one year, or one acre 17 years, well fenced and under what we call good tillage. Or it would purchase upwards of 13½ acres of soil, more fertile than yours after being thus manured. Or it would purchase one acre, and more than half build a comfortable log cabin upon it.

Now you see it is as difficult for us to understand your operations in farming, as it is for you to understand ours.

But if you, (by you, I mean eastern farmers generally,) and particularly your book farming hating neighbor, will take a journey through the west, there will be no more doubts expressed as to the magnitude of western farming. But which produces the most, (not wealth, but happiness,) I am unable to answer.

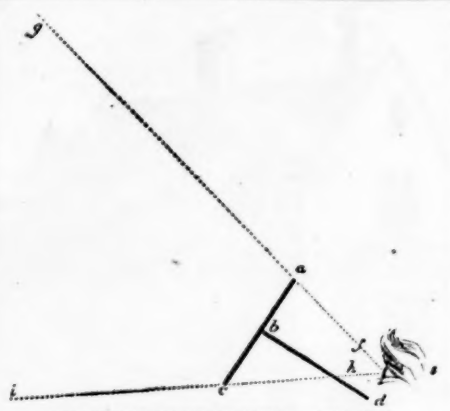
And now, sir, I hope what I have hastily thrown together, may give you some pleasure and satisfaction, for it is because I am induced to believe from a great number of similar complimentary notices to yours, that I have been able to please if not instruct my readers, that I have continued to make myself acquainted with you, through the agency of our common friend the Cultivator, and which I would most particularly recommend my new acquaintance, to whom you have introduced me, to subscribe for and read, and if he learns nothing more, I hope he will become so well acquainted with me, as to be able to rely upon what I may assure him is the truth. And not only this particular individual, but some thousands of other New-York farmers, are in duty bound to subscribe for this paper, and at this time, because it is a New-York farmer's paper, particularly devoted to their interest, and because the support from other states has materially fallen off this year, through sundry causes, and the New-York farmers alone ought to have sufficient pride to give the paper patronage enough to enable the publishers to maintain its present high standing.

And now my friend having written you a long letter, allow me to find one fault with yours:—it is anonymous—this is wrong; you should have given your name; you have written nothing but what you might be proud to acknowledge; besides, you have the advantage of me; to you I am almost personally known; and if I knew your name, and should by any chance be placed in a situation where I could knock at your door and receive, (as you may at mine,) the welcome "walk in," I have no doubt but I soon should become actually known. Thus our acquaintance and friendship is extended, whereby the agricultural interest is cemented together. This is one of the great benefits of agricultural papers; think of it in future. And now I will subscribe myself your friend,

SOLON ROBINSON.

Lake C. H., Ind., March 24, 1843.

GREAT YIELD OF COTTON.—J. E. Caldwell, Esq. of Fairfield District, S. C. raised last year, on one acre and an eighth of land, 3515 lbs. of seed cotton.



THE MEASURING CROSS.—(Fig. 40.)

MESSRS. EDITORS—When I was a little boy, I heard a very learned and scientific gentleman, a native of Germany, describe to my father, an easy method of ascertaining the exact height of a tree, monument, or any other perpendicular object, by means of what I have called at the head of this article, the *Measuring Cross*. As a knowledge of this may add to the farmer's stock of useful information, I communicate it for his special benefit.

In this diagram, *a. c.* and *b. d.* represent the cross to be used; *a. c.* and *b. d.* being of equal length, each precisely *twelve inches*. *b. d.* must be inserted in the center of *a. c.* at *b.* Then go towards the object you design measuring, placing the end of the cross *d.* on your chin, or upper lip, or any other part of the face on a level with the eye, until the *top* of the object at *g*, and the *end* of the transverse piece of the cross at *a*, form the right line *g. a. f.* with the eye at *e.*; and the *bottom* or *foot* of the object at *i.*, and the lower end of the transverse piece at *c.*, form the right line *i. c. h.* with the eye as before. Then *from the spot where you stand, to the base of the object, is its exact height.*

In this way, any person, though ignorant of the principles of trigonometry, may measure correctly a tree, for example, the height of which he is desirous of knowing before he falls it, so that he may be assured it will afford him a piece of timber of the requisite length for some particular purpose. Sometimes a farmer is under the necessity of falling a tree towards a fence some distance off; he is not certain, however, from merely looking at the tree, whether it will reach the fence or not; he has no quadrant or other angular instrument with which to take the angle of elevation; or if he even have, something else may be necessary and not at hand, or if at hand, not understood before the calculation can be made; moreover, it may be a cloudy day, or the tree may stand in the edge of the woods, and hence no shadow to afford data for his figures. Now what is he to do without the measuring cross? He will guess at the matter, and in all probability be mistaken; for as we are more accustomed to measure things of a *horizontal* position, the eye, being more experienced in such cases, is a better guide than in ascertaining the height of *perpendicular* objects. If he guess the tree *too low*, he will let his fence remain, and have it crushed to the ground; if he guess it *too high*, he will go to the trouble of taking down his fence, and putting it up again for nothing. But by means of this cross, he can tell at once whether it be necessary to remove the fence or not. Respectfully, J. H. YOUNG.

Boonsboro', Md., March 10, 1843.

CULTURE OF RICE.

IN answer to the call for information on the culture of rice, in our March No., ALFRED HUGER, Esq., P. M., Charleston, S. C., has favored us with a copy of a neat pamphlet of 80 pages, entitled "A Day on Cooper River, by John B. Irving, M. D." "In this," says Mr. H., "you will find Mr. Myrick's mode of planting rice, the best and the most successful that we on Cooper river have ever adopted." Annexed is the description of Mr. Irving of the mode pursued by Mr. Myrick in the cultivation of rice on Cooper river:

The lands were dug up in winter every second or third year, and turned up about five or six inches. He never turned in the stubble on river lands, but burned or hoed it off. When the fields were turned up, the ditches were shoveled out to the original depth, all the mud taken from them being thrown in the center of the bed, so as to make the bed more or less convex, and to allow the water to run off with greater facility. He never allowed the mud to remain at the edge of the ditches. He considered such slovenly work more injurious to a field than having no ditches at all. The fields were then flowed deeply, and kept so until ten days or a fortnight before planting, when it was run off and kept dry. A day or two before he commenced trenching, he chopped and leveled the field; then he selected two or three of his most intelligent fellows, whom he termed "guage men." These divided the fields with the greatest accuracy into beds of five feet, by drawing trenches at that distance from each other throughout the field. On the ensuing day, the rest of the men followed, and filled up these beds, by drawing rows fifteen inches from center to center.

He commenced planting on or about the 25th of March. His trenches, as I have said, fifteen inches from center to center, three inches wide, and as shallow as possible, merely giving earth enough to hide the rice, putting two bushels of seed rice to the acre. As soon as he finished planting a square, he flowed, and kept it flowed four days, taking off any trash that might collect. On the water being drawn off, the land was kept dry until the rice had attained its *fourth leaf*; it was then hoed from three to four inches deep, so as to turn over a good sod. Water was then again let on from fifteen to twenty-one days, according to the following circumstances.

At the end of fourteen or fifteen days, after the long-water (so called) was on, he always carefully *examined the roots of the rice*. If he found that the plant continued to put out new roots, and to form tillers, he continued the water on; but as soon as he discovered that the roots were getting hard, and ceased to grow, he run the water off. When he commenced drawing this flow off, (which was very gradually done,) as the land became exposed, he would, to use his own expression, "*follow the water*," and pull out all the grass in the trenches. As soon as the ground became perfectly dry, he gave the land another hoeing, about three or four inches deep, as before, to mellow the land, and allow the air to get into it, so as to expand the roots, and enable them properly to perform their functions. About a week after this hoeing, if upon examination of the roots, they were found hard and dry from hot weather, without occasional showers, he damped the field by letting in a tide or two, and then running it off.

He sometimes gave the land a second *light hoeing*, after the long flow, but this depended altogether upon the state of the plant, the field and the weather. If the second hoeing could not be done before the forming of the *second joint*, indicated by the stock putting out a new set of roots above the old, it was omitted, and the water put on. At the forming of the *second joint*, water was invariably put on, and kept deep on the rice. This period he deemed the *crisis* of a crop of rice. A very admirable and lucid writer in the Southern Agriculturist, for October, 1832, page 531, whom Mr. Myrick has often been heard to pronounce among the most skillful and judicious planters he knew of, in treating of this important stage in a rice crop, uses the following expressive language, which I must take the liberty of borrowing:

"This is decidedly," he says, "the most important crisis in making a crop of rice—nay, to obtain a full crop, it is a *sine qua non* to have your field *perfectly clean*, and a full command of fresh water at this time, inasmuch as the ear is now about to be formed, and will be either long or short, have many or few grains upon it, in proportion to the healthy or unhealthy state of the plant; and the quantum of grain can no more be increased by subsequent attention or good culture, than the sex in the animal creation can be changed after the formation of the fœtus."

Mr. Myrick sometimes drew the water off, when the rice was "*tight in belly*," but this was not his usual habit. He only did it to give the rice air, as well as to clean it of grass, when he found the ear not coming fully and regularly out, or as it may be more intelligibly expressed, perhaps, when a whole field would not otherwise ear out and blossom at the same time.

From the time the rice was in ear till it was fit to cut, he kept the water on, preserving the regular depth, but *freshening* it every two or three days, by letting some of the old water out, and taking in fresh.

As soon as the grain was hard, and full ripe within a few grains of the bottom of the ear, the water was let off for four or five days, when the rice was cut and harvested.

It is proper to state that Mr. Myrick was very particular as to his trunks and drains, and banks. In the construction of the latter, he considered a mixture of highland earth with mud, indispensable to the permanent duration of a river bank. He thought the light vegetable matter composing such land too perishable stuff for a bank, and that if used by itself, without the admixture of earth, would not only contract and separate, but settle also very considerably. Mr. Myrick, therefore, always added highland earth, not in layers, or indiscriminately mixed, but he *put it in the middle of a bank*, vertically from the foundation to the top, and the two sides plastered or sloped with mud. He did this not only to prevent cracking, but to guard against the perforations of crawfish, and to save the banks from being washed by spring tides, and when the fields were flowed. The base of his banks were never less than three times as great as the height.

Mr. Myrick's lands were divided, as nearly as he could, into fields of twenty acres, having reference, however, to the location of the land. Around each square, he placed a margin ditch, six feet wide at the top, and three feet at bottom, and five feet deep. The body of the field he divided by drains, two feet wide and three deep, one hundred feet apart. If the land was low, and drained badly from any other cause, he placed these drains or ditches seventy-five feet apart instead of one hundred. These ditches all emptied into the marginal ditches, six feet wide and five feet deep. The margin ditches were placed at a distance from the cross banks, twenty feet, and from the river banks, forty feet. If the field was lengthy, he put a center ditch, four or five feet wide, crossing the small ditches, which greatly facilitated their draining.

Mr. Myrick's task in digging land, was one-quarter to the hand, plantation measure. In chopping the land,

each hand was expected to do half an acre, but if the digging had been deep, twenty compasses alone were required, thus striking off ten compasses from the half acre. In trenching, each man was expected to do three-quarters of an acre, except the guage men, who, from the accuracy required of them, did only half an acre; or, in other words, they were each required to trench a number of rows equal to one hundred and twenty rows, of one hundred and fifty feet in length. Two acres was the task for a prime sower, and three-quarters of an acre for those who covered the rice.

Mr. Myrick put his trunks down to low water mark, and as nearly opposite the centre of the field as possible. One trunk, twenty-eight feet long, three feet and a half wide, and eighteen or twenty inches deep in the clear to every field of twenty acres, he deemed sufficient.

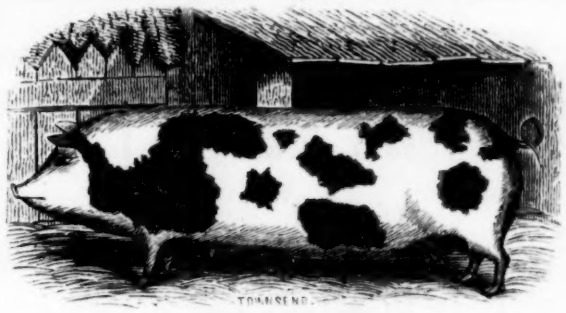
LETTER FROM MISSISSIPPI.

EDITORS OF THE CULTIVATOR—During last year, some kind frined, I know not who, (but if this ever reaches his eye, I beg him to accept my heart-felt gratitude,) sent me the seven first numbers of the 9th vol. of your most valuable paper. I need not assure you that as a planter, I read it with the greatest pleasure and profit; indeed, so much was I pleased, that I determined to become a subscriber this year.

Although the "Cultivator" is published in a state where perhaps a cotton plant never grew, yet do we of the south, where cotton is the great, I may say the only staple, derive the greatest benefit from its perusal. I would, indeed, its circulation were extended over the whole south; it is just the thing we want—a newspaper that advocates economy in every department, the producing every thing at home, and which, by the way, tells so many ways how these can be done. With us, heretofore, it has been too much the case that every thing has been sacrificed to increase the production of cotton. When this article yielded from $50 to $80 per bale of 400 lbs., the ambition of all was, who could produce the greatest number of bales—quality never (or scarcely ever) entered our heads; and to be candid, Messrs. Editors, it was then worth while striving, if the like effect could have continued. But now, alas! what a change has come over us! The crisis has come; the storm which was so long gathering has burst upon our devoted heads, and we are left, I had almost said, the spared monuments of former folly and recklessness. But to drop the metaphor, and deal only in the real: such has been the anxiety and determination, heretofore, to produce cotton, that I know I hazard nothing in saying, it has been made the sole desideratum; all else has been made to bend and yield to the accomplishment of this one end. All the minutia of farming has been passed over informally, or totally neglected; the improvement of our farms, the proper attention to our stock of every kind, (in order to have any,) has not only been considered of secondary importance, but almost as a matter beneath the notice of a cotton planter. Hence, since sad reverses have come, we have not only every thing to *do*, but nearly every thing most important to *learn*. The delusive fancy of many, that cotton would always or for many years maintain itself at 12½ or 15 cents per pound, I doubt not has been both directly and indirectly one of the chief, if not the very greatest cause of our present unparalleled distress and embarrassment. What more than this could have stimulated speculation until it amounted to a mania, introducing luxury, extravagance, and all the vices that follow in their train, causing us, in total disregard of sound policy, to produce every thing for market, nothing for home consumption? Can any people be considered independent, who cannot or *do not* live within themselves, at least as to all the substantials of life? If we sell all we raise, and buy from our neighbors the necessaries of life, are we an independent people? But the question is an absurdity. Such, however, Messrs. Editors, has been our course in this country. Possessing as we do, *all* the elements of wealth and independence, we have become the poorest, (in this respect,) I had almost said, the most dependent state of the Union. But I have been depicting the past, and with pleasure I now turn from the gloomy picture: there is a bright spot on which I most gladly dwell. Mississippi may, and I hope will, ere many years roll by, become one of the first in this glorious constellation of states. Her soil for fertility cannot be surpassed, she possesses, also, every variety of climate requisite for the growth of all the grains, grasses and vegetables that are produced in any of the states. Hogs, sheep, horses and cattle, can be reared as well here as elsewhere. She has eclipsed all the states in the article of cotton; she may compete with almost any in the production of all the necessaries, and many of the luxuries of life, both for domestic use and for exportation. It is plainly perceivable, also, that she is awaking from the long, the fatal delusion in which she has been so long bound; the energies of her inhabitants, which are certainly of the most recuperative character, are thoroughly aroused. We now scarcely ever hear of a planter buying corn; (formerly but few made more than one-third of their supply.) Many now raise all their meat, and manufacture their own negro cloths, both cotton and woollen, and raise also their horses and mules, and every article of domestic consumption. There are also other prominent signs of improvement and reform springing up amongst us, not the least important of which may be mentioned—the more gereral circulation of agricultural papers, and the organization of agricultural societies. These two sources alone, if properly sustained, are calculated to produce almost miraculous effects towards our regeneration and permanent standing as an agricultural people, for which alone I believe we were intended. Let our inhabitants act upon the true policy, the sure foundation, (and cotton cannot fall many more cents per lb. before *all* will do it,) and they must, they will rise superior to every difficulty. As I before observed, God has blessed us with every necessary element of prosperity, wealth and independence. Let but the means we have be developed; let it be our ambition to merit and obtain the proud appellation of a great agricultural (not cotton growing) state; let us first supply ourselves with all the necessaries of life, besides which we can furnish England with cotton, and then, but not till then, can we truly call ourselves entirely independent. This point I think we are approximating; it will, however, take time and much perseverance to root out the evil of past days, yet I have no doubt the proper course will be pursued, and the end ultimately accomplished.

T*******.

Wilkinson County, Miss., April 1, 1843.



Columbia Pig.—(Fig. 41.)

COLUMBIA PIGS.—(See Fig. 41.)

MESSRS. EDITORS—Enclosed I send you a rough cut (though an excellent likeness) of Betty, one of my Columbia pigs; also a short description of this breed of swine, together with the weight and measurement of some of them.

Betty (entered as a shoat) and Victor, (both of which took the first premiums at the late Fair of the American Institute,) were taken from the sow at seven weeks old, and fed with the wash of the dairy and a little meal, at first five times a day, and afterwards three times. Their feed was gradually increased until they were six months old, when the quantity of meal was about three quarts a day for the two. Victor, when six months and eighteen days old, weighed 353 pounds.

Four of the poorest of the same litter were killed in New-Lebanon, Columbia co., N. Y., in December last, three at eight months and twenty-six days old weighing 262, 282, and 315 pounds; one at nine months and six days old weighing 324 lbs. They have small bones and heads, great length of body, are heavy in the hams and shoulders, quick growers, easy keepers, and made to weigh 400 to 500 pounds, at twelve to eighteen months old, with ease.

Pocahontas, their dam, in store order, is supposed to weigh upwards of 500 pounds.

	Age.	*Length.** ft. in.	*Girth.* ft. in.	*Height.* ft. in.
Pocahontas, at	3½ years,	6 11½	5 4½	2 8
Victor,	" 7 months,	6 4	4 4	2 6
Betty,	" 7 "	5 9	4 2¾	2 2

In forming the Columbia breed, I cannot give you the names of those I used; for if they had any, (Berkshires excepted,) they were unknown to me. I merely selected animals that excelled in those points in which I thought my stock deficient.

They are much longer in body and smaller in the head, than the Berkshires I am acquainted with, (which I think an excellent breed,) with other points equally good, a much heavier hog, and very easy keepers.

—

CULTURE OF RUTA BAGAS.

LAST season, on my ruta bagas, I tried unfermented barn-yard manure, bone dust and poudrette, in the proportion of a bushel of the two latter to one ox-cart load of the former. Ground the previous year in potatoes. The yard manure was spread and plowed under as soon as taken out in the spring, and left in that state until the 20th June, when the ground was again plowed and thoroughly harrowed, the drills marked out, and bone dust, in the quantity before mentioned, sowed in the drills, except where the yard manure had been spread. In one of the drills, a like quantity of poudrette was sowed instead of the bone dust. The seed was them sowed, and it came up tolerably well. In a few weeks, there was a great difference in the appearance of the piece, the tops where the bone and poudrette were put almost covering the ground, while the balance of the piece was almost naked. On gathering the crop, that where the bone and poudrette were put, yielded at the rate of 700 bushels per acre, while the others were hardly worth gathering.

H. W. TIBBITS.

Yonkers, Westchester Co., N. Y., Feb. 23, 1843.

* From end of nose to root of tail.

YOUNG DENTON.

MESSRS. GAYLORD & TUCKER—As many breeders of the improved Durham Short Horn cattle in the U. States believe Col. Powell was the importer or once the owner of Young Denton, (963,) and were led into that error by the 2d vol. of the Herd Book, you will confer a favor on many friends of the late STEPHEN WILLIAMS, Esq. of Northboro, Mass., that feel an interest that he, the first importer into the United States of this valuable race of cattle, should have the credit he was justly entitled to. Mr. Williams not only imported Young Denton in 1817, but in 1822, he imported Arabella, by North Star; and it was through him and his brother, Charles Williams, Esq. of London, that Col. Powell obtained his Stately, Mr. Joseph Lee his Harriet, and Israel Munson, Esq. his Tube Rose, all from the herd of Mr. Wetherel.

Young Denton, (963,) bred by Mr. Wetherel, was imported by Stephen Williams, Esq. of Northboro, Mass. He arrived in Boston in November, 1817, then sixteen months old. He was kept on the farm of Mr. Williams at Northboro, except a part of one or two seasons he stood at the farm of Gov. Lincoln in Worcester, until he was taken to Maine in 1827 or '28, where he died, April 16th, 1830.

By some unaccountable blunder, Young Denton (963) is entered in the 2d vol. of the Herd Book, p. 60, as being sold by Mr. Wetherel to Col. Powell of Powellton, near Philadelphia. Col. Powell never had any interest in him other than having purchased of Mr. Williams many of his get, i. e. Prize, Fairy, Julia, Lucinda, &c., one-half and three-fourths blood animals.

Mr. Williams, in a letter to me, said: "I can show by his (Mr. Powell's) letters and my journal, that *Denton** was on my farm a year or eighteen months before he knew there was such an animal in the country; and when he did see him, he exclaimed in his *extra way* in his praise."

HENRY WATSON.

East Windsor, April, 1843.

TAN AS A FERTILIZER.

MESSRS. EDITORS OF THE CULTIVATOR—I avail myself of the opportunity you afford me by the inquiry of Mr. J. W. Saunders of Buckingham, Va., to give you some information respecting the real value of tan as a manure, and to point out the mode of using it most advantageously. It is indeed a subject hitherto not satisfactorily resolved, whether the residue of the bark of oak, after having been employed for the purpose of tanning, can be of any utility to agriculture. I have investigated the matter thoroughly, and made several comparative experiments, and the following is the substance of precise results I have obtained during several years of trial.

Tan, as such, is almost inefficacious, and even detrimental to certain soils; but blended with vegetable substances, especially when these are green, and then subjected to violent and long fermentation, after the manner of my method, it may be successfully applied to every soil, not as constituting manure by itself, but as a retainer of the properties of my lye, and as hindering the escape of the carbon which is in the soil; for by the operation of tanning, the bark has lost the greater portion of the salt and alkalies which every woody fibre contains. Tan, however, has still some stimulus, which, in contact with lime, serves to excite the humus and make it soluble.

If, then, your Virginian inquirer would like to follow my method in the reduction of his tan into manure, he must mix it up in a heap of vegetables; without mixture, it is impossible to effect fermentation sufficiently powerful to cause the decomposition of the tan, inasmuch as the latter, by the operation previously undergone, has been deprived of its fermenting faculties, and has become an inert substance. If he chooses to make use of his tan in its natural state, and without any other preparation, meadow land is the best recipient for it; there its utility is most certain, for it increases the vegetable bed, warms the new plant, checks the emission of the carbonic acid developed in the soil by manure or by vegetable or animal matter; there it is the most speedily decomposed, by reason of the greater abundance of humidity. However, it is well to mix a little plaster of Paris with it.

I profit by the occasion to acquaint a number of correspondents who have directed to me inquiries concerning the reduction of several kinds of peat, muck or swamp mud, that this matter is carefully treated in a work I shall soon publish, under the title of "Bommer's Large Method of Making Manure." If I have postponed answering some of them, it is because their inquiries were of such a nature as would have occasioned me too much writing; and then I did not like to treat partially a subject, a connected view of which forms a prominent part of my large method.

Subscribers to my abridged method, now in circulation, are informed that I will direct to their address, without any additional charge, a copy of my large method, as soon as it appears.

GEO. BOMMER.

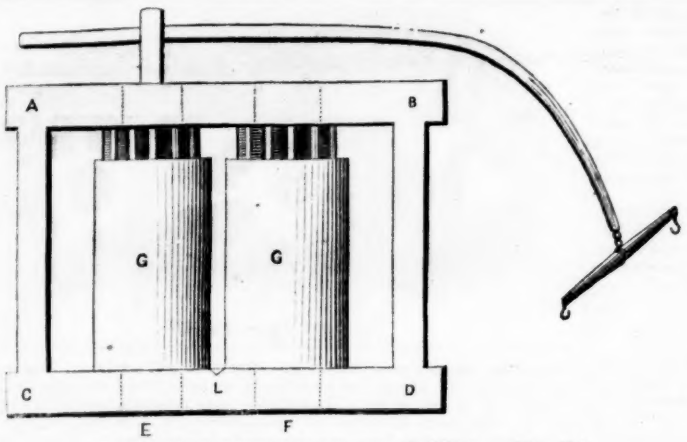
New-York, 17 *Rector-st., April* 13, 1843.

* Mr. Williams always *called* the bull *Denton*, without the addition of *Young*.

CORN STALK SUGAR.

MESSRS. GAYLORD & TUCKER—I have received various letters asking information relative to the construction of Mr. VAUGHAN'S mill for making sugar from corn stalks, the manner of cultivating the corn, the process of manufacture, &c. To save the trouble of future inquiries, I send you a description of the mill, with a rough draft, which you will oblige me by inserting in the Cultivator.

The mill (fig. 42,) is composed of two upright rollers, one 58 inches, the other 46 inches in length, which are secured by a strong frame, 8 feet long, 3 feet wide, and 30 inches high. Seventeen cogs on one roller, work in an equal number of cogs on the other, and are moved by a sweep. The short roller has a body 24 inches long, with a diameter of 20 inches; a neck piece at top, to be inserted in the frame, 8 inches long, 10 inches diameter; a cog space immediately under the top neck, 6 inches long, and 17½ inches diameter, and a neck piece at bottom, 8 inches long and 10 inches diameter, making its entire length 46 inches. The long roller is of the same dimensions, with similar body, neck pieces and cog space, with the exception that 12 inches are added to the top neck of the long roller, for the insertion of the sweep.



VAUGHAN'S CORN STALK SUGAR MILL.—(Fig. 42.)

EXPLANATION.—A. B. C. D. The frame—G. G. The bodies of the rollers—L. Depression in the platform for the juice to run out.

In grinding, the stalks are passed by hand between the rollers, and the juice is squeezed out on their passage. If not sufficiently pressed out on their first passage, they are returned a second time between the rollers. The juice is caught by the bottom piece of the frame, which is 3 feet wide, like a platform, and made sloping on one side, so as to make it all run out into a vessel placed there for that purpose.

After the juice is obtained, it ought not to stand more than an hour, for fear of fermentation. It is then placed over the fire, and as it begins to boil, carefully skimmed. When boiling, the scum should be rapidly removed as it rises. If some of the syrup can be taken between the thumb and finger, and when moderately cool, a thread a half inch or inch can be drawn, it is thought to be boiled sufficiently. If you wish to make only syrup, it is not boiled quite so much. To make it grain into sugar, a few spoonfulls of lime water has been recommended.

The only fixtures used by Mr. Vaughan in boiling, were a common ten gallon pot, and three others of about the same size. The process is neither intricate or tedious. Corn standing in the field, may be cut, ground up, and converted into an elegant syrup in three or four hours.

From the foregoing description, it will be seen that the principle upon which the mill is constructed, is the same as that of Mr. Webb's of Delaware, as described in the June No. of the Cultivator for 1842, with the exception of the dumb returner or third roller, which is not found in Mr. Vaughan's mill. The process of boiling and manufacture is the same. Neither the plan of the mill or process is new. Mills of a similar description have been used by planters in the lower part of Georgia, for making sugar and molasses from the sugar cane, for family use, for the past twenty years. To Mr. Webb of Delaware, is however, due the great credit of subtituting corn stalks for canes.

Is it profitable, is a frequent question. Mr. Vaughan thinks he can make sixty gallons of molasses per acre, which, at present prices retailing in this country, would yield a profit of 25 or 30 dollars to each acre. When the manufacture becomes common in the west, such is our unbounded capacity for making corn, of course the profits would be nominal. But if only made for family use, it will be a great saving, and become, when we get in the way of making plenty of molasses, an actual blessing to children and negroes. Three days are sufficient to grind and manufacture 60 gallons of molasses, and the work will come on when the time can be easily spared for it. The refuse juice is valuable for making a most grateful beer and good vinegar.

As to making sugar, Mr. Vaughan failed in his attempt the past season; but he will plant 15 acres this spring, and "try again." His failure, he thinks, was altogether owing to late planting, which did not give his corn time to mature, and to heavy frosts which injured the juice before he could grind it. Cost of mill, $6,00.

Caledonia, Henry co. Tenn., March 29, 1843.

CHEMICAL MANURES.

MESSRS. GAYLORD & TUCKER—In answer to Mr. Manly, in his criticism on my article relative to Liebig's assertion that ammonia will decompose sulphate of lime on the land, I must inform Mr. M. that if he had read the first article I wrote on the subject, he would have found it predicated entirely on a partial change being produced when ammonia is presented to sulphate of lime.

I am aware that a neutral salt will be partially decomposed, by presenting to it an alkali having a weaker affinity for the acid of the salt than the alkali or alkaline earth previously in combination, as the last portion held by an acid, near the point of saturation, is retained by a weak affinity. Berthollet asserts "that the force of affinity acts most powerfully when two substances first come into contact, and continues to decrease in power as either approaches the point of saturation." Again, "that in elective attractions the power exerted is not in the ratio of the affinity simply, but in a ratio compounded of the force of affinity and the quantity of the agent; so that quantity may compensate for weaker affinity. Thus, an acid which has a weaker affinity than another for a given base, is capable of taking part of that base from the acid which has the stronger affinity for it; so that the base will be divided between them in the compound ratio of their affinity and quantity."

Such laws of chemical action do not, however, warrant the unqualified assertion of Liebig, that ammonia will decompose plaster of Paris at atmospheric temperatures, leaving as residuums sulphate of ammonia and carbonate of lime.

I observed in my article, criticised by Mr. M., that near the boiling point ammonia would decompose sulphate of lime chemically, and that in cooling, the original affinities would again resume their influence. The power of decomposition will, therefore, vary as the temperature of the materials; it will be greater as the temperature increases, and diminishes as it decreases.

I would inform Mr. Manly, that I use Ure's tables of affinities, published in London, in the year 1835, and would be obliged if Mr. M. can recommend any of later date equally correct. WM. PARTRIDGE.

New-York, March 27, 1843.

LAST SALE OF BERKSHIRES.

MESSRS. EDITORS—Allow me to thank you for your kind correction, in the last number of the Cultivator, of the premiums awarded to the Berkshires at the Planter's Club in Georgia, and also for the friendly notice and recommendation of our Berkshires to the breeders of this state. But from circumstances which have transpired since our last communication, we cannot avail ourselves of the kindness meant us, having just sold our remaining reserved lot of Berkshires to Colonel John Bonner of White Plains, Green county, Georgia, together with our good will as breeders of the same. They consisted of six sows and two boars, all choice and very superior animals, including Ontario and Lady Huttleson, the two only remaining animals of our last importation, sent us out by Mr. Hawes, and which we flatter ourselves would not suffer in comparison with any of their kind, either imported or bred by any other person in the union. The produce from Ontario have uniformly been superior to any hog we ever bred from, and are warranted in saying that his produce has met with the decided approbation of our customers, which renders the possession of such an animal a high privilege to his enterprising owner, and a great acquisition to the community of the state in which he is placed.

From the number and superiority of the animals sold Colonel Bonner, together with his purchases made from the principal breeders at the north, fully warrants us in saying that we believe Colonel Bonner possesses some of the best blood, and most probably the finest selection of Berkshires to be found in the union; and take great pleasure in recommending his stock to all breeders of Berkshires, particularly to those persons who anticipated honoring us with their future orders, as we are fully assured that all orders entrusted to Colonel Bonner will be fully and promptly met, and with the most unscrupulous honor.

We believe that the first Berkshires of the improved race imported into the union, were owned in our family; consequently, since the year 1824, we have been before the public as breeders of the same, and from which time to the present we have sold a great number of hogs into almost all the states in the union, and also the Canadas, whether for good or evil to the country we will leave the community to judge.

We again most respectfully solicit the attention of the public to Colonel Bonner's stock of Berkshire hogs, and with our continued good wishes for the increasing success of your valuable journal, and our grateful thanks to our numerous patrons, we make our bow to the public, and retire from the business altogether. A. & G. BRENTNALL.

Canterbury, N. Y. April 17th, 1843.

SILK CULTURE.

MESSRS. EDITORS—One of the advantages attending the reeling of cocoons in large filatures, in Italy, &c. is that a larger selection and assortment of cocoons can be made, so as to reel a quantity of the same character of raw silk together, and make the bales of silk uniform.

There is, however, more industry in our country, and the following is suggested as being more suited to the interests of our agriculturists.

Suppose a few few families in a neighborhood each raise 50 or a 100 bushels of cocoons, which they could do without hiring labor, generally, and all using the same eggs, collect the product together, and take in turn to assort all of a kind separate, and appoint one or more to reel them, as can best be arranged, and send *to market the raw silk* on their own account. This plan would realize the greatest gain to the growers, and make the silk of most value to the manufacturers.

New-York, April 6, 1842. G. M. HAYWOOD & Co.

"YANKEE OXEN AND DRIVERS."

IN a late number of the New-England Farmer, I notice an article with this caption. The writer, among other things, says:—"The breed of New-England working oxen have had a good deal of practice. The Puritan followed them two hundred years ago." * * "They are undoubtedly the finest race of working cattle in the world. But the committee on working cattle at Albany, last fall, I see by the Cultivator, seem to think it necessary to cross them with *foreign stock*. Of *course*, by all means! Nothing purely *American* would do; at least it would seem so in the meridian of Albany."*

Now I would ask in the first place, with what propriety it can be said that "the breed of New-England working oxen was followed by the Puritan two hundred years ago?" Could the cattle kept by the Puritans "two hundred years ago," be called a "New-England breed," or had those cattle sufficient distinctness of character to be claimed as *any* breed? And will it be said that the "New-England breed" of cattle at this day is the same as that which the "Puritan followed?" "Nothing purely *American* would do," says this writer. Have we a breed of domestic cattle which can be called "purely *American?*" How could such a breed have originated, unless they have been bred from the American buffalo or bison? But this "New-England," however it may have originated, is "undoubtedly the finest breed of working cattle in the world!" Yes, "*undoubtedly!*" Is the experience and observation of the writer sufficiently extensive to justify this broad assumption? And suppose it is conceded that these cattle are the "finest," is it the *breed*, or the *training* and *management* that has made them so? But the prominent idea of this writer is, that the best cattle for work, are directly descended from those which the "Puritan followed two hundred years ago." I cannot believe this to be correct. I know it is an idea quite common among the New-Englanders; but how it originated, I never knew, unless it sprang from the general habit of reverencing everything which has descended from the "Puritan" fathers. It appears to me that such a conclusion could never have been the result of fair experiment, comparison or observation. Several years' practical acquaintance with different varieties of cattle in New-England, united with close observation, have satisfied me that the best working cattle in that section have been produced from importations, (and crosses from them,) which have been made within the last fifty years; and if any one will take the pains to investigate the matter—to trace back the genealogy—I will venture the opinion, he will find that nearly all the most celebrated working oxen in New-England—such as have carried prizes at the cattle shows for the last twenty years, and have been sold at the highest prices—have had more or less of either the Bakewell Long Horn, the improved Short Horn, the Hereford, or the North Devon blood in them. I have attended many of the New-England cattle shows, have seen the best New-England cattle, and have not formed these opinions hastily. Where could we look for a fairer test of the powers and abilities of the working ox, than among the lumbermen of Maine? In that frosty region, where the average annual depth of snow is from four to five feet, the hardy and industrious inhabitants carry on an active business in winter, by cutting down the extensive forests of pine, and preparing the logs for market. To plow through those deep snows with the enormous logs which are hauled, the hardiest and most powerful oxen are required; they must be both strong and active. Ask those

* This witticism loses much of its force—if force it has—when it is recollected that three of the five gentlemen who acted on the viewing committee on working oxen at Albany, were from New-England, and were probably quite as well acquainted with the working oxen of Massachusetts, Connecticut, and Vermont, as the writer of the above flippant quotation. The report and recommendation referred to, emanated from ROBERT COLT, Esq. of Pittsfield.—EDS.

lumbermen what was the blood of the best cattle which they have employed in this business for the last twelve or twenty years, and so far as they can tell, you will find it to have been descended from stock imported within a comparatively few years, by Mr. Vaughan, Mr. Thorndike and others, or that it has sprung from bulls of the Bakewell, improved Short Horn, or Hereford breeds, and their crosses, which have been carried to that region of country.

But I have not time to enter into details in this matter. There are extremes on this, as on other subjects. Some who have chosen a particular variety of foreign stock as a hobby, are apt to imagine that no other breed has any merits. On the other hand, there are those who obstinately refuse to try any change from the "native breed;" standing in a similar situation to the Irishman who refused to try any other kind of wheat than that which his great great grandfather had used, on the plea that it was "*nathral*" to the soil. The blindness of prejudice is the "sin that most easily besets us," and against that we should be constantly on our guard. We should learn to judge from *principle*, and before our opinions are made up on any subject, it should be understood. There are and will be diversities of opinion on the relative merits of different breeds of cattle, for the same purposes and for different purposes; and I know of no more important service which could be rendered by an agricultural socie y possessed of sufficient means, like your State Society, than to institute a series of properly conducted experiments, by which the truth on this subject should be elicited and diffused.

S. HOWARD.

Zanesville, O., March 5, 1843.

PRODUCT OF DAIRY COWS.

EDITORS CULTIVATOR—I notice in the last number of your paper a proposition of Mr. Sotham, at Hereford Hall, to ascertain the product, for the current year, of his dairy of Hereford cows, for the benefit of the public. I entertain the opinion that it is only by pursuing this course that the public can ever become enlightened on this subject. We have had theories and opinions, unsubstantiated by facts, in abundance; we now call for *proof* of these theories, and it can only be furnished by experiments of this character. The isolated cases which have been exhibited as tests of superior milking qualities in some of the improved breeds of cows, in my judgment prove nothing. Similar examples can be shown respecting any breed. It is not enough that a single cow, for a single week, yields a large product, upon high keeping. Place, with ten or twenty others of the same kind, this cow, and keep them in the same manner that the native cows of the ordinary dairy farmer are kept; weigh and measure the products for the period of a year; and if they possess superior properties, it will by this process be made evident. I should be happy if some gentleman who has a dairy of Short Horns, will pursue this course and give the result. If there is such an one, I wish to state, for his encouragement, that from my dairy of twelve cows, (not one of which possesses a drop of royal blood,) for the current year, commencing 1st March, 1842, I made 6,403 lbs. of cheese and butter, or about 533½ lbs. per head—the cheese weighed when cured and sold. There is no *estimate* here; it is the *actual weight*. The feed of the cows was grass and hay alone, no meal or roots being used. Mr. Sotham is going ahead on the right principle: success to him. In this way we shall become possessed of the truth, which in these days of humbug and moonshine, is a great desideratum. Respectfully yours, JAS. T. NORTON.

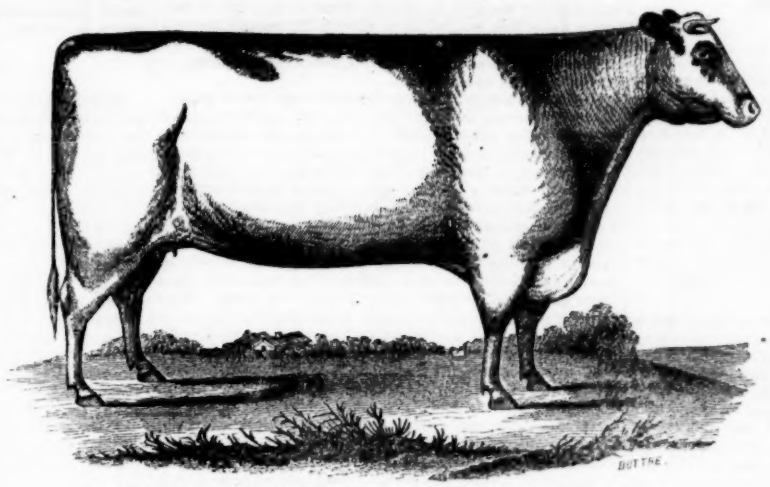
Goshen, Conn., April 17, 1843.

THRESHING MACHINES.

MESSRS. EDITORS—From the great need of good Threshing Machines for the use of fertile prairie farms, I take the liberty of soliciting the favor of your informing me where this valuable desideratum can be found. (Its true we have them in plenty, such as they are, but they are rather complicated and too expensive.) I wish to procure one of simple construction, suitable only for such individuals who have farms sufficiently large to justify the erection of one on his own premises, and one that will thresh out say from 100 to 150 bushels per day. The object I have in view, is to establish a manufactory of such an article, if the design of a suitable one can be obtained.

I have long felt quite satisfied of the economy arising from having one on the farm, stationary, as in unpropitious weather for out door employment, your farm hands can go to threshing out grain. If you can oblige me by an introduction to any patentee or manufacturer of this article, I need not say you will confer a favor not only on your communicant, but a large community of industrious farmers. Respectfully yours,

Laporte, In., April 10, 1843. JAMES WHITTEM.



IMPROVED SHORT HORN HEIFER "HEBE."—(Fig. 43.)

THE PROPERTY OF MAJ. J. B. DILL, AUBURN.

At the Fair of the New-York State Agricultural Society, held at Albany, Sept. 1842, "Hebe" received the first prize as the best two year old heifer. The portrait, particularly in the head, does not do justice to the heifer, which was commended by the judges as "a very superior animal." HEBE, a pure white, calved April 1, 1840—sired by American Comet—dam, Gazelle, by Charles, 1816—g. d. Crocus by Romulus, 2563—g. g. d. Prize by Marlbro, 1189—g. g. g. d. Tulip by Regent, 546—g. g. g. g. d. Primrose by North Star, 459—[See Herd Book.]

☞ In giving the pedigree of Gazelle, in our last No., an error occurred in the No. of Regent. It should have read 546, instead of 516.

PORK AT THE WEST.

THE Cincinnatti Gazette has lately had several papers on the pork trade of the west, and particularly of Cincinnatti, which have much interested us, as exhibiting the rise of that business, its present extent, and the vast magnitude it may be reasonably expected hereafter to assume. We have room for only a few facts gleaned from the Gazette, which it will be seen corroborate the positions assumed by us in some late remarks on the oil trade of the west.

The pork trade of the west does not date more than twenty years back; when from five thousand to ten thousand hogs were cut in a season. The farmer who drove his hogs to market, then paid the butcher from 12 to 20 cents per head for killing, and the butcher retained the offal as at present. The butcher now pays the farmer from 10 to 25 cents premium for the privilege of killing. The number of hogs killed at Cincinnati is this year estimated at 250,000, and a capital of about two millions of dollars is employed. Hogs are driven to the Cincinnati market from parts of Ohio, Kentucky, Indiana and Illinois; few, however, from a greater distance than 200 miles, and the greater part within a circle of 300 miles in diameter, of which that city is the centre. Within the above district it is estimated that 500,000 hogs are prepared for market; and of this number 75,000 are raised in the Wabash valley alone. This is an important fact, as it may reasonably be expected, that now when the Erie and Wabash canal is completed, a large portion of the pork from this fertile valley, will find its way through our canal to New-York.

In driving hogs to market, the farmers frequently club together, each one having his hogs marked, and drive them to market in droves of from 500 to 1,000; though the farmer sometimes sells to drovers, who purchase by the gross weight living. Such droves will travel from 6 to 10 miles a day, much depending on the state of the roads. The Berkshires are said to be the best travelers. This fact is worthy of notice, as it disposes of the principal objection to their introduction and spread in the west. There are a great variety of breeds of hogs in the west, such as the Chinese, Irish, several English, and the Russian breeds, with a multitude of crosses. "Hogs have been raised here weighing over 1200 lbs., but the average weight is from 200 to 250 lbs.—the latter size being the most desirable." This must refer to packing pork of particular kinds; as where they are intended for lard, from 300 to 350 lbs. hogs, well fatted, are found the best.

The western pork differs from the eastern in one respect. What food they receive while fattening is corn exclusively. The various methods of making pork practiced in the east, such as feeding apples, boiling potatoes, using barley, &c. are unknown at the west. The hogs are taken from the forests in many instances, and turned at once into the corn fields, where they remain till driven or sold. Of one thing the foreign purchaser of western pork may be certain; his pork has not been fattened on mutton; sheep are too valuable there for such purposes. This year a large portion of the western pork has been packed with direct reference to sales in Europe, and prepared in the English mode. Should the trade succeed as it now promises, a market for pork and lard will be secured, which will prevent the fluctuations which has hitherto attended the pork trade of the west.

MASS. PREMIUM FARMS.

WE find in the N. E. Farmer of March 8th, the statements of the several successful candidates for the premiums on farms, offered by the Ag. Society of that state, and have examined them with much interest, as showing how much can be done in a short time to improve farms, where there is energy and intelligence in the occupant. If we wished to convince any of our readers—we hope there are none who doubt it—that manure is the great source of agricultural wealth, and the means of making and using it the surest proof of agricultural success, we would request them to procure and read these statements for themselves; for though necessarily brief in the replies to the propounded queries, on this point they are perfectly conclusive. We shall make a few extracts, and first from the paper of Mr. Morgan of Palmer, in reply to query 20, "What are your means of making manure?"

Last year fatted 28 hogs. I furnished them with muck from the banks of ditches, turf from the road side, weeds, and every thing of the kind I could collect. Fatted 66 wethers, which I sold for $585. Also fatted 57 oxen, and wintered 51 head of cows, steers, and young cattle, and one span of horses. My entire stock was kept on cut feed. The whole labor was performed by two men. I am fully persuaded this process is a great saving of fodder—I think at least 20 per cent. Carted from my barn, 767 loads of manure last spring. Have now 103 head of cattle; 24 horses fitting for market, and have 97 sheep. One barn is 123 feet long, by 36. Have a cellar under the whole barn; can drive in with cart and oxen. Nearly all my manure is covered. Average weight of my 28 hogs, 329 lbs. Through the summer and fore part of the fall, fed them on raw potatoes and apples, with one bushel of corn once in two days, buried in holes in the muck, for them to root over. Carted from my hog pen last spring, 443 loads of manure.

This was an old worn out farm in 1839, of 145 acres, and purchased by Mr. Morgan, at that time, for $2,140, crops included. Of his land, he had in 1842, in tillage 21 acres, in mowing 55, the remainder pasture and woodland. Who can doubt that he has, as he says, doubled his crops of grain and grass, when they look at his manure heaps. More than twelve hundred loads in a year from a farm of 145 acres; how few are the farmers who provide the same supply, no matter how great their number of acres.

This other statements agree with Mr. Morgan's, in the importance attached to manures, and in their efforts to increase the quantity used on their several farms. Thus Mr. Harrison says:—I make manure in a vault, in which I keep six or eight hogs for that purpose; I cart in earth, ashes, lime, all the filth of the house, and all I can get from low places. Through the summer, I feed my hogs with the wash of the house, and mow clover for them. I also bury corn in the vault, with a view to make them stir up and dig over my dung. I fat them by boiling potatoes and pumpkins, mixing in while hot, barley meal, to scald it. Mr. Richardson carts peat or swamp muck into his barn yards and hog pen, with wash from the road side, potatoe tops, weeds, &c., and puts peat under all places where he throws out manure, to save all the leaching. In the spring, mixes all together with the best effect.

The business of making manure is too much neglected by farmers generally. There can be no doubt that nearly every man who works a farm, might double the quantity of manure produced annually. It is true it would require labor; but in what part of the farming process is the laborer so certain of ample reward, as when increasing his manure heap? All experience proves that expenditures for this purpose, are investments of capital that return to the farmer an interest that should satisfy the most penurious.

FAITH AND WORKS.—There is no pursuit in life in which the union of faith and works is more necessary, or productive of better effect, than in that of farming. This is well illustrated by the following little story, which we have somewhere heard or read. At the early settlement of New-Hampshire, the inhabitants of a town in the interior consisted chiefly of Irish or Scotch Presbyterians, who among other things, adopted the following custom. When their fields were planted and sown, the minister, with his elders, deacons, and the farmers, visited each field in succession, offering up a short prayer at each, that their labors might result in a plentiful harvest. One day the procession engaged in this pious preambulation arrived at a field, where the minister stopped, took a quick but keen survey, and then addressed his flock to this purport: "My friends and brethren, we may pass along; it will be of no use to pray over this field, till there is more manure spread upon it; otherwise, even the prayer of a righteous man, however *fervent*, cannot be *effectual*."

Veterinary Department.

DISEASE OF COWS.

MESSRS. EDITORS—A friend of mine lately lost a very valuable cow, soon after calving, under the following circumstances. She calved and did well to all appearance at first, but soon began to be affected in her fore quarters; if she attempted to walk, her fore feet remained stationary, while her hind ones moved around circularly. She soon died. She had been kept well for three or four years, and was so fat, that when she died, 100 lbs. of tallow were taken from her. As it is an uncommon case among us, permit me to inquire of you, or some of your numerous subscribers, the nature of the disease, the remedy, &c. S. W. BARTLETT.

Scantick Village, Ct.

The case noticed by our correspondent is one of *puerperal fever*, or as it is termed by veterinarians, "*dropping after calving.*" Cows in high condition are most subject to this disease, which usually appears in from one to five days after calving. The first symptoms are decidedly febrile; the animal is restless, shifting her feet, and breathing laboriously. The nose is hot, and the udder is inflamed, enlarged, and tender, from the very commencement. Bleeding, from six to ten quarts, to be regulated by the impression made on the circulation, must be resorted to at once, and the bleeding must be followed by physic; for which purpose, a pound or a pound and a half of Epsom salts are best, and half pound doses every six hours, till the bowels are opened. If the disease is not attended to in the outset, and it is too frequently neglected, the nervous system is speedily attacked, when the symptoms of staggering, &c., noticed by our correspondent, usually occur. It is occasioned by a partial paralysis of the fore or hind quarters, most commonly the last; the animal soon falls, her head is bent back to her sides, and death soon supervenes. In the last stages, there is little hope or chance of relief; but if the pulse is such as to indicate fever, bleeding may be resorted to till the last, with a bare possibility of saving the animal; but great care is requisite, as the bleeding, carried too far, is fatal at once. In some papers in the Veterinarian, Mr. Friend relates several instances successfully treated by Epsom salts in large quantities, followed immediately by Croton seed and sulphur.

LICE ON ANIMALS.

IF you have purchased any animals that were poor, or if you have most unwisely allowed any of your own to become so, now is the time to examine all such carefully, and see that in addition to their being poor, they do not become lousy. There is not an animal that does not, under suitable circumstances, nourish in its hair, wool, feathers, or its skin, some kind of louse; and sometimes more than one kind of these parasites lodge and prey on the same animal. In ordinary cases, they do not produce much mischief, but when they increase so much as to produce the disease called *Phthiriasis*, they become truly formidable. The cause of animals being troubled with lice, may usually be traced to a want of cleanliness. When the dust and sweat accumulated on the hair, and in contact with the skin of the ox or horse, are allowed to remain undisturbed by the comb or brush; when the stables are kept filthy, unventilated, and unwholesome; when animals, reduced in autumn by want of pasture, or by living in unhealthy ones, are suffered to take their chance for the winter without extra care or attention; or when a beast loaded with pediculi, is turned into the yards or the stables of those exempt from these parasites, it may be expected that they will multiply, and infest animals. When we see horses rubbing their tails, biting their manes, and showing other signs of uneasiness and irritation; when cattle are observed to be rubbing their heads against posts or fences, and the hair coming off from the head and neck; or when sheep tear out tufts of wool with their teeth, and bite these places till blood appears, we may expect that lice are present. On most animals, these parasites have some favorite place of resort; on horses, the mane and tail; on horned cattle, around the nose, base of the horns, and the neck; on sheep, they run over every part; and on swine, they do not seem to be confined to any particular location.

Pure air, room for exercise, plenty of food, and above all, cleanliness, are the first things to be attended to in the cure of this evil. Currying, brushing and washing should be resorted to, as, except in bad cases, this treatment will be usually sufficient to free the animal from these insects, without recourse to other remedies. Where these fail, it will be necessary to have recourse to such external or internal applications as shall operate directly on the vermin.

One of the most common remedies is the mercurial ointment, *unguentum*; but this, though effectual, cannot be used without some danger, as numerous instances have occurred in which valuable animals have been destroyed by its use. When its use is necessary, care should be taken to prevent the animal from biting itself where the ointment is applied, until it has had time to take eff ct. A decoction of tobacco leaves in a strong lye, forms a very good wash; but this, too, owing to the narcotic poison of the tobacco, has caused death. Various vegetable remedies have been resorted to, among which are the seeds of the *Delphinium staphysagria;* and the leaves and flowers of the *Ledum palustre*, or marsh tea. The roots of the black hellebore, or a decoction made from them, have been used with success; and it is said that the water in which the skins or parings of potatoes have been boiled, will effectually destroy lice by a few washings. The internal use of sulphur is an excellent remedy, and if given to animals occasionally, is one of the best preventives.

It is more difficult to apply remedies for lice to sheep, than to any other animals. The English shepherds make use of a salve compounded of white arsenic and corrosive sublimate, carefully parting the wool, and applying the ointment in small quantities directly to the skin, and rubbing it down with the finger. Tessier prefers tobacco smoke to this ointment, as involving less danger in its use. The sheep is held in such a manner that tobacco smoke is forced from a bellows among the wool to the skin in all directions. After this fumigation, the sheep must be placed in the open air, that the vapor may have room to pass off without being inhaled by them. Perhaps the best remedy for lice in animals, where they have not become so numerous as to produce the disease *phthiriasis*, is to rub any oil, such as whale oil or melted lard, on such places as they most frequent, or on parts of the animal where they will be most likely to come in contact with it. All the pediculi breathe through what are termed spiracles or openings in their bodies, and the least particle of oil spread over their bodies, by causing suffocation, at once effects their destruction. This is also a perfectly harmless remedy. But prevention in this case is better than cure; and neatness, cleanliness and good keeping, by insuring comfort and health, leaves no opportunity for the attacks of vermin.

COLIC IN THE HORSE.

THERE are few diseases more troublesome or dangerous to the horse than the colic; and it is usually in the winter that its appearance is most frequent. One of the best descriptions of the disease and its mode of treatment, is to be found in Stewart's Stable Economy, from which we have condensed the following.

"The horse is usually attacked by the colic suddenly. In the stable, he paws the ground with his fore feet, lies down, rolls, sometimes quite over, lies on his back, but at times, when the distension of the belly is not great, will sometimes lie still for several minutes. When the distension is great, he neither lies or stands still a minute, but lies down and gets up incessantly, strikes his belly with his hind feet, and looks wistfully at his flanks. When standing, he makes many and fruitless attempts to urinate, and the keeper or owner generally imagines there is something wrong with the water." Sometimes in the worst cases the swelling is very inconsiderable; but in all cases, as the disease proceeds, the pain becomes more and more intense; the horse dashes himself about with frightful violence; the perspiration runs off him in streams; his countenance betrays excessive agony, and his contortions are not suspended for a moment.

Sometimes he is attacked on the road. "If his pace is fast, he should be stopped at once. To push him on beyond a walk, even for a short distance, is certain death. The bowels are displaced, twisted and strangulated, partly by the distension, but aided a great deal by the exertion, and no medicine will restore them to their proper position." When death ensues, the bowels are found inflamed, twisted, and generally ruptured.

In the treatment of colic, the first object is to arrest the fermentation that is the primary cause, and re-establish the digestive powers. "In mild cases, a good domestic remedy, in common use among old fashioned people, who have never heard of inflamed, spasmed or strangulated bowels, is whiskey and pepper, or gin and pepper. About half a tumbler of spirits, with a teaspoonful of pepper, given in a quart bottle of milk or warm water, will often afford immediate relief. If the pain do not abate in twenty or thirty minutes, repeat the dose. Four ounces of spirits of turpentine, with twice as much sweet oil, is much stronger; but if the horse is much averse to the medicine, turpentine is not always safe."

"There is, however, a better remedy, which should always be in readiness wherever several draft horses are kept. Take a quart of brandy, add to it four ounces of sweet spirits of nitre, and three ounces of cloves. In eight days this mixture or tincture is ready for use; the cloves may still remain in the bottle, but they are not to be given. Set the bottle by, and label it distinctly, "Colic Tincture." The dose is six ounces, to be given in a quart of milk or warm water, every fifteen or twenty minutes, till the horse is cured. Keep his head straight and not too high when it is given. Do not pull out his tongue, as some stupid people do when giving a drink. Give him room, and if he will not stand till the drink be given, watch him when down, and give it, though he be lying, whenever you can get him to take a mouthful; but give the dose as quickly as possible. After that, rub the body with a soft wisp, walk the horse about *very slowly*, or give him a good bed and room to roll. In eight cases out of nine, this treatment will succeed, provided the medicine be got down the horse's throat before his bowels become inflamed, or strangulated, or burst. The delay of half an hour may be fatal. When the second dose does not produce the relief desired, the third may be of double or treble quantity. I have given a full quart in about an hour, but the horse was very ill."

Bottles are generally used for giving medicine to horses, but unless the neck is wound with twine, there is danger of the horse breaking it with his teeth, and injuring himself with the pieces. A large horn, with a small point for insertion in the mouth, is preferred by many, as exempt from this danger.

"DISEASES OF SWINE."

MESSRS. GAYLORD & TUCKER—On looking over the last February number of your most invaluable agricultural periodical, I find an article bearing the above "insignia," by D. B. C., which had inadvertently escaped my attention, asking for information relative to a most peculiar and singular disease affecting swine; and it is with pleasure I now recur to the subject, and will extend to D. B. C. and all others, the experience, cause and cure of the disease, I have had.

D. B. C. states that "upon opening the barrow, a whitish jelly like matter, upon both sides, and the whole length of the urinary passage, was found; the flesh much inflamed and apparently bloodshot." In short, Messrs. Editors, I can say that all the cases I have seen or heard of, are precisely similar in symptoms, and all other respects to D. B. C.'s statement, and therefore will not consume your time in restating them, but will come at once to the point in view.

If D. B. C. had examined the entrance of the orifice of the urinary canal, I think he would have found a few coarse, long unnatural hairs, growing too far in and up the orifice or opening. When the animal makes an effort to urinate, there is retained, in consequence of these hairs, by the animal, invariably, part of the urine involuntarily, which by running on for some time, as was the case with D. B. C.'s hogs, collects and forms from putrefaction and other causes, the white jelly like substance abovenamed; and it is the large quantity retained in the urinary passage of this matter, which brings on the swelling and inflammation, and hence arises the difficulty of the animal to void its water.

I cannot well account for this disease, or the causes which produce it, unless I attribute it to the hairs spoken of; and attributing it to this, I cannot give any well grounded, and probably not even plausible reasons for it; only from the nature, tendency and bearing of the remedy I have used, I think the disease to be solely attributable to this cause.

The remedy I now give, and would advise D. B. C. and all others who have swine with this disease, to use, is very simple, plain and harmless, and I have never heard a single case in which it was tried, that failed.

Turn inside out, as far as convenient, the interior of the orifice of the urinary passage—then with a pair of pincers or nippers, pull out the long coarse hairs I have named, and with lard or other grease, mix salt, about half and half, and run it up the canal as far as possible, and rub it well, particularly around the inflamed parts. This I have always found to produce a running, which will carry off all this matter, and cleanse the parts thoroughly—cause the inflammation and swelling to go down in a few days—the animal to receive instantaneous relief, to urinate freely and without pain, and lastly the urinary passage to assume its natural shape, &c. in a few days, and the animal will thrive finely.

Should D. B. C. see fit to try this simple remedy, I should be pleased to hear from him through the Cultivator, and should this communication be the means of saving any of his swine, I shall consider myself richly and handsomely paid for contributing my mite.

I concur heartily in D. B. C.'s remarks, regarding the great value and usefulness of the Cultivator, and every good agriculturist ought not, and I like to have said, cannot do without it. AGRICULTOR.

Talbot co. Md., March 20, 1843.

GLAUBER SALTS FOR SWINE.

MESSRS. GAYLORD & TUCKER—I have made some experiments on hogs, which were very satisfactory to myself. One day as I was returning from a store, with a paper of glauber salts, I thought I would go and take a look at my hogs. It was in the evening, just before they were fed. While I was looking at them, the paper happened to burst, and the salts fell upon the ground. The hogs devoured them greedily. I thought I would try giving them some regularly for a week, and see what effect it would have upon them. They appeared more brisk and frolicsome, and I observed at the end of the week, that they increased rapidly in weight to what they did formerly. They were then but six months old, and in about two months they weighed 350 lbs., and judging from appearances, I should think they did not weigh more than 200, before I gave them the salts. I observed it made their necks very thick, their hind legs grew larger than their fore legs, and several hogs that were before black, became nearly white, and they all appeared to thrive well. Your ob't and humble serv't,

Port Deposit, Md. Feb. 19, 1843. WM. LARKIN.

INFLAMMATION IN THE EYE OF THE HORSE, &C.—From our correspondent, "Gleaner:"—"I had a horse hurt his eye the past winter, and I thought he would lose it; but I have restored it again. For inflammation of the eye, take sassafras twigs of one year's gorwth; take the inner bark, a handful to a pint of cold water; let it stand for a few hours; it will become thick, like the white of an egg; wash the eye out well; it will remove the inflammation. *For a Film on the Eye*, take loaf sugar; pulverize it as fine as possible; take a goose quill and fill it, and blow it in the eye, which will remove it. My horse was entirely blind, and the above cured him, so that he can see as well as ever."

The Garden and the Orchard.

ASPARAGUS.

It is not often that military men find time to pay attention to horticulture and gardening, but we find that Capt. Churchill, of the British Royal Marines, is an exception, since in an interesting paper to the London Hort. Society he has given an account of some observations made by him at St. Sebastian, in Spain, while the English army held that place during the late troubles in that country.

The Guipuscoan asparagus, produced at St. Sebastians, has long been celebrated, and it was to the cultivation of this that his attention was principally directed. It has been generally supposed that the Sebastian asparagus, which is from three to six or more inches in circumference, was a distinct variety; but Prof. Lindley says there is but one sort of asparagus, and the observations of Capt. Churchill prove his correctness. We copy that part of the paper that describes the culture, as from it we think the asparagus growers of this country may derive some useful hints:

"Asparagus is a plant found naturally on the beach of various parts of the coast of Europe, where it is covered by the drifting sand, and watered by salt water at high tides. Sand and salt water occasionally may, therefore, be regarded as indispensable conditions for maintaining it in health. How seldom is this thought of! It, however, in part explains the excellence of St. Sebastian asparagus. It seems that at the mouth of the Urumea, is a narrow slip of land about three feet above high water mark, consisting of alluvial soil, and the wearing away of sandstone hills at whose foot it is placed. This is the asparagus ground of St. Sebastians. Beds are here formed without any previous preparation, except digging and raking. In March the seed is sown in drills about two inches deep, and eighteen inches from the alleys, thus leaving a space of two feet between the drills. The rows run invariably east and west; doubtless that the plants may shade the ground during the heats of summer. When the seedlings are about six inches high, they are thinned to something more than a foot apart. Water is conducted once a day among the alleys and over the beds, so as to give these seedlings an abundant and constant supply of fluid during the season of their growth; this is the cultivation during the first year.

"The second year, in the month of March, the beds are covered with three or four inches of fresh night soil from the reservoirs of the town; it remains on them during the summer, and is lightly dug in during the ensuing autumn; the operation of irrigation being continued as during the first season. This excessive stimulus, and the abundant room the plants have to grow in, must necessarily make them extremely vigorous, and prepare them for the production of such gigantic sprouts as they yield.

"In the third spring the asparagus is fit to cut. Doubtless all its energies are developed by the digging in of the manure in the autumn of the second year, and when its does begin sprout, it finds its roots in contact with a soil of inexhaustible fertility. Previously to the cutting, however, each bed is covered in the course of March, very lightly with dead leaves, to the depth of about eight inches; and the cutting does not commence till the plants peep through this covering, when it is carefully removed from the stems, that the finest only may be cut, which are rendered white by their leafy covering, and succulent by the exceeding richness of the soil. In the autumn of the third year, after the first cutting, the leaves are removed, and the beds are again dressed with fresh night soil as before; and these operations are repeated year after year. In addition to this, the beds are half under salt water, annually, at high tides."

It appears clear from this statement of Capt. Churchill, that the excellence of the St. Sebastian asparagus is not owing to its being a new variety, but to the peculiar treatment it receives. Every one knows that much the larger portion of the asparagus grown in this country, or offered in our markets, is miserable stuff; dark colored and tough, and only occasionally showing what this delicious vegetable might be under proper cultivation. The Spaniards combine sand, salt, irrigation, and the most active of manures, in the growth of their gigantic shoots. We seem to think it will grow any where, and under any treatment. Should any object to such a liberal use of fresh night soil, it might be obviated by the substitution of poudrette and rich composts. Of all soils for asparagus a clay soil is the worst, and its character must be changed before the growing of this vegetable should be attempted. There is a very large portion of the lands in the vicinity of New-York suitable for asparagus, and in thousands of instances they might be placed so as to reap the advantages of salt water, as is done at St. Sebastians. Manure, also, of the best kind, may be readily obtained, to give the beds any desirable degree of richness. If we would retain any plant in perfect health and vigor, it must be allowed its natural habits as far as possible. In such a situation, cultivation and manures add to its size, and render it tender and succulent. Asparagus requires a large quantity of water to perfect its growth, as indeed do all plants, when rapidity of growth is desirable. In the wet climate of England watering is found necessary, and in our hot and dry seasons, irrigation would seem indispensable. We hope some of our Long-Island or New-Jersey friends, who have the means, will test the St. Sebastian mode of culture, and if successful, as we have no doubt they would be, they would deserve and receive the thanks of all asparagus eaters.

THE GRAPE IN MISSISSIPPI.

Most of our readers are aware that Mr. Affleck, the former talented editor of the Western Farmer and Gardener of Cincinnati, has left that paper, and become a resident of the state of Mississippi, bright eyes and broad lands being, as we understand, the cause thereunto moving. But old associations and feelings have, we are glad to perceive, not lost their influence; and a Report, made to the Horticultural Society of Jefferson College, last autumn, which we find in the Natchez Free Trader, from his pen, proves that he is destined, in his new location, to exercise a favorable action on the agriculture and horticulture ot that district. The Report to which we have alluded is based on the visits of a committee of which Mr. Affleck was chairman, to the gardens in Natchez and its vicinity; and a most inviting display of fruit and flowers does it present to us. In truth, Natchez and its environs must be the Eschol of the southwest, so far as the grape is concerned. After noticing several varieties of the grape found there, the Report says:—"Of this, the Jack grape, the most valuable variety we have, there is an astonishing crop upon a single vine, at the residence of the Rev. James Carron, in Natchez—upwards of 2,000 bunches, almost all large and perfect. The vine is now supposed to be about eleven years old; its stem measures four inches in diameter, and its branches cover a space of four hundred and fifty square feet, being trained over head in his court-yard, at the height of about eight feet. This grape has been sadly overlooked, for the reason that it acquires its dark color some weeks before it is ripe, and when gathered at that time, its sourness renders it by no means palatable. But if allowed to hang on the vine until fully ripe, it not only proves itself to be a delicious and highly flavored table grape, but it is the opinion of this committee that it will be found valuable for wine-making."

In connection with this subject of grapes, we may mention that while at the north training on trellises, north and south, so as to give the greatest exposure to the sun, is found preferable to arbor training, the latter course is found most successful at the south, where the extreme and *long continued* heat renders protection rather than exposure desirable for this fine fruit. Of this, an instance is given in a late number of the Columbia Register of Agriculture, in which grapes trained on trellis work, north and south, always rotted from forced maturity; while the same variety, we think, trained on arbors or trees, and of course receiving protection, were of the best quality, and perfectly free from rot.

We think there is not sufficient attention paid to the culture of the grape among the farmers at the north, as they are easily cultivated, and the fruit is not only delicious but healthy, and forms one of the most inviting and best relished of the table fruits. It is true, none but the hardy kinds could be grown, and on some soils, and in some locations even, these could hardly succeed; but in most cases, where a vine can be trained against a wall or building, grapes will be produced in any part of the northern states. We strongly advise every farmer to procure a few plants or cuttings, of kinds known to be hardy, and make an experiment for himself. The trouble or expense will be trifling; the reward, if successful, will be abundant.

TRANSPLANTING TREES.

The farmer who allows a single season to pass without planting out trees, either for fruit, ornament, timber, or fuel, or perhaps for all these purposes, certainly mistakes his true interest. Every tree that is properly planted, adds to the value of the farm, since there are few of them that do not answer good purposes in various ways; and they certainly add much to the beauty of every place. There is no one who does not like the looks of a farm where the avenues are bordered with trees, and the yards properly planted and arranged with trees, shrubbery, &c. It takes but a few years for the maple, locust, elm, or ash, to grow up into valuable timber trees, and on most farms how many vacant nooks are to be found which might be filled up by these to advantage. How many families there are, where the parents, or the children, beg or steal all the fruit they have, who have land enough, (could they only muster a little energy to plant trees,) to furnish all the fruit they need for the year? How many of our farmer's houses stand naked and desolate, not a tree for fruit or shade near them? We have often wished that our farmers generally could read Mr. Downing's work on the subject of ornamental and other planting, as we are confident it could scarcely fail to produce a beneficial effect in the correction of these evils. It takes time to plant trees, it is true, and what improvement is made for which time is not required; and let it be remembered, that the man who husbands his time, who performs every thing when it should be done, always has his time at command, and will manage to accomplish thrice as much, as he who is forever an hour behind his time. Plant trees, then, every year. Fill up all vacancies in your woodlands; see that your highways are not forgotten; remember that a screen of evergreens is required by orchards and fruit gardens in all exposed situations; plant shrubbery and trees in your yards; and don't forget your fruit. If your fruit trees are well selected, there is no necessity of great numbers to furnish a succession of good fruit at all seasons. Never be content with any thing short of the best. One word as to planting the streets of our cities and villages. More failures are witnessed in these places than any where else; and although the cause is very obvious, it is rare that any efforts are made to obviate it. Grading and leveling in these places, in most instances, makes the surface of new earth, that which has never been exposed to atmospheric influences, or mixed with vegetable matter, and is consequently wholly unfit to nourish trees. Where planting is required in such cases, the holes for the trees should be made broad, and filled in with good mold; and if the soil is retentive, drains should be cut to prevent these holes from being constantly filled with stagnant water. Evergreens should be planted later in the season than other trees; June or July will do; though when proper precautions are taken, they may be removed at almost any season. The roots of trees should never dry during the process of transplanting; nor should they be cramped or mutilated, when it can possibly be avoided.

THE PEACH TREE.

The conclusion to which our correspondent, "J. H." of Preston, Conn. has arrived, in accounting for the fact that the seed of a particular fruit will in some instances produce fruit like that of the parent tree, and in others, entirely different, is undoubtedly correct, viz:—"that the flowers of one tree are impregnated by the pollen of others, thereby producing all manner of fruit; but where a tree is isolated, so that no such union takes place, the fruit will resemble the original."

J. H. further says:—"A. R. McCord is informed that ashes placed around the bodies of trees in the spring, will effectually protect them from the ants, besides aiding materially their growth. Soft soap, reduced to the proper consistence, and applied with a brush, will impart to all trees a fine healthy appearance. It will also destroy the Aphis, or tree louse. A dark green foliage, free from curls, indicates health in the peach, without which, good fruit cannot be expected."

Apples at the South.—In a late number of the Farmers' Monthly Visitor, are some remarks on the culture of the apple in the vicinity of Mobile. It appears that apple trees grow with great rapidity in that climate. In five or six years, the small trees brought from New England, had become large, and the Russetts, the Greenings, the Pippins, &c. which in Massachusetts hardly attain their full growth before winter, at Mobile, ripened in August and September, on the trees. The ripening was in succession; the fruit most exposed to the sun and air, first reaching maturity, and are gathered and sold as they ripen. So superior is the flavor, size and excellence of these apples ripened on the tree, that they can scarcely be identified with the same kinds of northern growth. For a number of years, the little orchard of the informant averaged him a return equal to fifty dollars a tree. This rapid maturity, however, is followed with as rapid decay; and the place of the failing trees had to be filled with other importations from the north. This effect of climate was not less striking on vegetables, such as the potatoe, beet, carrot, &c. The seeds of these he imported every year from the north; and for the first crop they surpassed in size and quality the northern originals; but degeneracy followed seeds produced from roots grown at the south.

Domestic Economy.

LARD LAMPS.

I was pleased on seeing the notice of lard lamps in the March number of the Cultivator. It is plain that if lard can be conveniently burned, it is much better than to burn stearine and the oil separately, as the expense of separating them is avoided. I have used lard lamps for more than a month, and decidedly prefer their light to any other. Instead of using glass lamps, however, I have used Neal's patent tin ones, which are preferable to the former in not being easily upset, and incapable of being broken, at the same time that they are more readily filled.

According to the experiments which I have made, sixty-five pounds of lard will supply two lamps in constant use for four hours in each twenty-four, the year through, and each give as much light as a common spermaceti candle. This amount, at present prices, could be afforded for four dollars; while I have generally paid from ten to twelve dollars a year for the same light from whale oil. The advantages which the lard lamps have over common candles, are, the light is clearer, they need no snuffing, and they are cheaper; while the trouble of filling them is no more than that of cleaning candlesticks. They have none of the unpleasant odor of oil lamps; unlike them, they do not soil the fingers with oil, as the latter often do; and are attended with less than half the expense.

Without wishing any evil to our New-Bedford and Nantucket friends, I would ask, how many dollars would be saved in this country, if each family now using oil should save its five dollars a year by substituting lard? And what would be the benefit to the pork raisers? The sum, I think, would be counted by at least hundreds of thousands. J. J. T.

FARM EMBELLISHMENT—BUILDINGS, FENCES.

There are comparatively few of our farmers who could afford to be at any considerable expense for rural

embellishment alone; but we think there are many who would do more in this way than they now do if convinced there was an actual profit in such expenditures, and that by improving the appearance of their farms, they were adding to their positive value and increasing their own means of comfort. The man who spends a few days every year in planting fruit and ornamental trees, is adding decidedly to the permanent value of his farm, as well as improving its beauty. The man who spends a few days, and perhaps dollars, in painting or coloring his barns, outbuildings, and fences near his dwelling, is very far from throwing away his time, or losing money by the operation. However slovenly and unthrifty a man may be himself, he is always pleased with a neat well managed place; and were he to be a purchaser, would always prefer paying well for such improvements, rather than have them wanting. The most careless observer is struck with the wide difference there is between two farms, on one of which all the buildings, gates, fences, &c., are just as they should be, all in good order and perfect repair; and another, where all is the reverse, nothing in its place, and nothing as it should be, and instinctively prefers the former. We do not advise our readers to engage in extravagant expenditures in any case; the times demand economy and retrenchment; but we should be gratified to see more attention given to rural embellishment, particularly where it can be done with little expense, other than the time and labor of the farmer himself.

Experiments abundantly prove that whitewashing, or otherwise coloring outbildings, fences, or wood work of any kind exposed to the air, has a powerful tendency to preserve it from premature decay; and certainly does much to improve the appearance of the farm on which such operations are performed. Whitewash, colored at the pleasure of the farmer, laid on once in three or four years, is one of the best preservatives of pickett or board fences, yet discovered; quite as good as the ordinary oil painting sometimes adopted. For the benefit of those who are willing to make improvements of this kind, we give the following methods, selected from a great number, as they may be depended on for good results, and are cheap and easy in their preparation:

Take 2 quarts of skimmed milk; 2 ounces of fresh slacked lime; 2 lbs. whiting; and the same proportions for any larger quantity. Put the lime into a stone vessel, pour upon it a sufficient quantity of milk to make a mixture resembling cream; then add the remainder of the milk. When this is done, crumble and spread the whiting on the surface of the fluid, in which it will gradually sink. It must then be well stirred, or ground as any other paint. By the addition of any coloring matter, you may make it suit your fancy. It must be put on with a paint brush, and when dry, a second coat should be given. The quantity named is sufficient for twenty-five or thirty square yards.

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To make a *fine stucco whitewash*—Take clean lumps of well burnt stone lime, (oyster shell lime will do as well,) slake with hot water in some vessel to keep in the steam, and then sift through a fine sieve; add ¼ lb. whiting, 1 lb. sugar, 3 pints of rice flour made into a thin and well boiled paste, 1 lb. glue dissolved by simmering over a slow fire. The lime must be the basis of the wash, and of that mixed with water and the above materials, enough must be used to make a wash of the proper consistence. It must be laid on with a brush, and while warm.

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Take one bushel of unslacked lime, and slack it with cold water; when slacked, add to it 20 lbs. of Spanish whiting, 17 lbs. of salt, and 12 lbs. of sugar. Strain this mixture through a wire sieve, and it will be fit for use, after reducing with cold water. This is intended for the outside of buildings, or where it is exposed to the weather. Two coats should be laid on wood, and three on brick. A whitewash brush may be used for laying it on, and each coat must be dried before the next is applied. This may be made any color you please. For straw color, instead of the whiting, use yellow ochre; for lemon color, ochre and chrome yellow; for lead or slate color, lampblack; for blue, indigo; or green, chrome green.

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There is one difficulty frequently attending the use of whitewash, and that is, it comes off in flakes, or the coats separate from each other, or from the wood. This is occasioned by its being put on too thick, which should be strictly guarded against. The wood is affected by the alkali of the lime, and the first coat should have more reference to this fact, than to the color. When wooden outbuildings, fences, &c., are protected in this way, their durability is greatly increased, and an air of neatness and comfort, worthy of the farmer's attention, secured.

BUTTER MAKING.

The following comes to us from a lady, and we trust that "some practical dairy-woman" will furnish us with the information asked for, in season for our next number:

Messrs. Editors.—Having taken your paper since January last, I have read it with interest and profit, but have looked in vain for that in which I most needed instruction. Can you not induce some *practical* dairy-woman to give, in your next number, a minute description of the process of making butter in the best manner? Ask her to bear in mind, that a young woman brought up in a city, may possibly never have seen milk-pan, churn, nor butter-ladle, and to name the kind of pan, churn, etc., which she has proved best. By so doing, she will enlighten at least one inexperienced person, and perhaps benefit The Neighbors.

MAKING SOAP.

It is well known to many housekeepers, that failure often results in the manufacture of common soap, even after the ley is proved to be of sufficient strength, by means of the common family hydrometer, the egg. This failure is in consequence of the solution of the potash (or the ley) not being sufficiently *caustic*, which is caused by its combination with carbonic acid from the air while it existed in the form of ashes. This may be strikingly shown by its powerful effervescence when subjected to the action of one of the stronger acids. This difficulty may be easily removed by the use of lime, which has a stronger affinity than potash for carbonic acid, and which consequently abstracts it from the potash, leaving the latter nearly pure, and consequently in a caustic state. It is accomplished either by placing unslacked lime in the bottom of the leach, or subsequently in the tub of ley. J. J. T.

ITEMS IN DOMESTIC ECONOMY.

Use spirits of turpentine to remove grease spots from clothes. It dissolves the grease, and then soap the more easily removes it. Grease may be removed from undyed woolen by a solution of pearlash.

Lime spots on woolen clothes may be completely removed by strong vinegar. The vinegar effectually neutralizes the lime, but does not generally effect the color of the cloth. Dark cloth, the color of which has been completely destroyed in spots six inches square, has thus had its original color perfectly restored.

The whiteness of ivory handled knives may be restored by rubbing them with fine sand paper or emery.

The oftener carpets are shaken, the longer they last, as the particles of dirt and sand which collect upon them grind the threads. Sweeping them also wears them.

Dry wood will produce on a moderate estimate, twice as much heat as the same amount of green wood; and saves much trouble in kindling fires on cold mornings. To prevent its burning away too rapidly, the sticks should be large. To suppose that green wood will actually cause more heat in burning than dry, is as absurd as to suppose a vessel of hot water will freeze sooner than a cold one. J. J. T.

SODA FOR WASHING.

We have been requested by a correspondent, to publish the recipe for washing with sub-carbonate of soda.

To five gallons of water, add a pint and a half of soft soap, and two ounces soda. Put the clothes (after soaking over night,) into the mixture at boiling heat, rubbing the parts most soiled with soap. Boil them one hour—drain—rub, and rinse them in warm water; after being put into indigo water, they are fit for drying. Half the soap and more than half the labor is saved by washing in this manner.

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